

## THE MEANING OF PRATYAYA IN PATAÑJALI'S YOGA-SŪTRAS

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Patañjali used in several places of Yoga-sūtras (I 10, 18, 19, II 20, III 2, 12, 19, 35, IV 27) the word *pratyaya*. Owing to the great number of documents we are justified to presume that the word *pratyaya* has but one meaning in Yoga-sūtras, and that its correct and exact meaning can be reliably arrived at.

J. W. Hauer,<sup>1</sup> however, points out that *pratyaya* in Yoga-sūtras has two meanings: 1. the presented-idea (*Vorstellung*) in the sense of imaginative consciousness which is supposed to be common in Yoga phraseology, 2. whilst in the *nirodha* text I 1—27 *pratyaya* has at the same time the meaning of a concurrent or participant cause.

The variety in the conception of the word *pratyaya*, as a cause, presented-idea, thought, etc. has of course far reaching consequences:

1. Patañjali namely in II 20 says that the seer, i. e. the subject surveys *pratyaya*. If we interpret *pratyaya* as a presented-idea, it is evident that the subject does not survey the outside reality directly, but only the images about it. The world is then only one's presented idea and for this reason Patañjali is regarded as an idealist.

2. Besides, the various meanings support the presumption about the disharmony in the text of Yoga-sūtras as was stated by P. Deussen, J. W. Hauer, and E. Frauwallner, etc.

3. This finally supports the opinion expressed by H. Jacobi,<sup>2</sup> that Yoga-sūtras are under the influence of Vasubandhu's Buddhism, and are thus placed into the V. century A. D. J. W. Hauer opposes this opinion by restricting this influence only to the text I 1—27 and IV, in which, according to him, *pratyaya* has the same meaning as in Buddhism, i. e. the cause.

These serious consequences justify us to analyse once again the text of Yoga-sūtras with regard to *pratyaya*, in order to ascertain its correct

<sup>1</sup> J. W. Hauer: *Der Yoga als Heilweg*, Stuttgart 1932, p. 157. *Pratyaya* is translated by J. W. Hauer as: *Vorstellung, Bewußtseinsgegenstand*; by P. Deussen: (*Allgemeine Geschichte der Philosophie* I, 3) *Vorstellung, Vorstellen, Vorstellungsvermögen, Erkenntnis*; by E. Frauwallner: (*Geschichte der ind. Philosophie* I) *Denken*; by J. H. Woods: (*The Yoga-system of Patañjali*) *presented-idea, presentation, cause*; by M. N. Dvivedi: (*The Yoga-sūtras of Patañjali*) *cause, intellect, mind, consciousness, knowledge, sign, conception, thought*.

<sup>2</sup> H. Jacobi: *Über das ursprüngliche Yogasystem*, *Sitzungsberichte der Preuß. Akademie* 1929, 1930. *Über das Alter des Yogaśāstra*. *Zeitschrift für Indologie und Iranistik*, Band 8, Leipzig 1931, p. 80—88.

meaning as understood by the author Patañjali himself. In this way we shall also verify the justification of these consequences.

### I. PRATYAYA and its meaning.

Etymologically *pratyaya*<sup>3</sup> means something which goes in the direction to something or somebody.

The range of the meaning of *pratyaya* is very large: a) cause, motive, condition, sign; b) usage, certainty, trust, faith, confidence, belief; c) thought, presented-idea, die Vorstellung, mental image, knowledge, conception, das Denken, consciousness, mind, intellect. In the medical literature it is synonymous with *hetu* — cause, *kāraṇa* — cause, *nimitta* — condition, in Buddhism with *hetu* and *kāraṇa*. The commentators of Yoga-sūtras consider *pratyaya* to be the synonym of *kāraṇa*, *hetu*, *nimitta*, *vṛtti* — fluctuation, *sattva*, *cittasattva* and *buddhisattva*. According to the Pietersburg Dictionary, Nil. interprets in MhBh 13, 4589 *pratyaya* as *abhiprāyah*, i. e. "auf etwas losgehend, gerichtet auf, zielend auf."

In the case of *pratyaya* we can thus distinguish from the psychological point of view three groups of meanings: 1. *pratyaya* determines the relation between the exterior thing and the consciousness, namely cause, motive, condition, sign, i. e. the impulse from a source; 2. *pratyaya* means the final elaborated form, caused by the preceding stimulation — die Vorstellung, presented-idea, thought, knowledge; 3. *pratyaya* determines the reaction to an exterior impulse, i. e. something which refers to objective reality — certainty, trust, belief, faith, confidence.

In principle *pratyaya*<sup>4</sup> determines the relation between the object and subject, referring at the same time to objective reality.

The etymology of the word *pratyaya* thus developed from the meaning of its initial phase as an impulse from a source (MhBh, Buddhism) to its final phase as Vorstellung, presented-idea, mental image.

An analogical etymology can be observed also e. g. in the expression *pratyakṣa* which means (from *prati-akṣa*) in the direction to the sense-organ, i. e. the relation of the exterior object to the sense-organ. This relation is

<sup>3</sup> *Pratyaya* from *prati-eti* to go towards someone, or in direction to someone. According to Sāṃkhya-philosophy it goes from the eye at the object *vṛtti*, which carries the image of the object, colours it, and carries it through the eye into the mind. Vyāsa (to I, 7) understands the senses as pipes or channels through which the image enter the interior. According to Patañjali (I, 10) *vṛtti* — commotion is supported by *pratyaya* — the impulse from a source which colours the mind in which the commotion is created as the result of this impulse. *Pratyaya* corresponds to our impulse, the impulse from a source, but not to presented-idea. The presented-idea is evoked by an impulse from impressions as the source.

<sup>4</sup> H. Jacobi [a. a. O. I. 1929, p. 2 (588)] states that „*Pratyaya* ist eigentlich soviel wie wahrnehmende Erkenntnis und bezeichnet die *vṛtti* hinsichtlich ihres Inhaltes. *Vṛtti* ist die psychische Funktion subjektiv, *pratyaya* objektiv.“

Th. Ščerbackij (Buddhistic Logic II, p. 126, 262, 287 etc.) interprets *pratyaya* in Buddhism also "perceived image", and elsewhere as reaction as a term embracing both sensation (*pratyakṣa*) and conception.

distinguished in the sense that the sense-organ either grasps the thing, or that the thing comes to this sense-organ. For this reason the definition of *pratyakṣa* in Nyāya-sūtras I 1,4 emphasizes in the first place the relation between the sense-organ and the thing, and in II 1, 21 combats the objection that the definition does not mention its connection with *manas* (central sense-organ, the mind).<sup>5</sup>

Vyāsa in Yoga-sūtras I 7 differentiates in the case of *pratyakṣa* in the same way as Vatsyāyana between the instrument of knowledge and the knowledge as a result (*pramāṇa* and *phala*), i. e. by this he expresses both the initial relation, namely that the consciousness (*citta*) is coloured by the external thing throughout the channel of the sense-organ,<sup>6</sup> i. e. it is a matter of a direct relation to the exterior object, and the final phase i. e. the result (*phala*) of which the subject is conscious (*pratisamvedī*).

The meaning of *pratyakṣa* develops from the original, initial stadium as a sensation determining the relation of the object to the eye, and precedes to the final phase (perception as knowledge), so that it relates to the whole recognizing process of perception. With Patañjali, *pratyakṣa* has the meaning of the initial perception i. e. of sensation, whereas the commentators interpret *pratyakṣa* as the complete process of perception.

Analogical development can also be observed in the case of the word *pratyaya*.

## II. PRATYAYA according to commentators.

### a) Pratyaya expresses the initial relation.

The commentators of Yoga-sūtras have noted quite clearly the original meaning of *pratyaya* as an initial stadium, i. e. as an exterior cause, an impulse from a source.

According to Vyāsa a single thing is a common basis for many mind-stuffs (*bahutcittālambanibhūtam ekan vastu sādhāraṇam* IV 15). The thing becomes the cause of an impulse, developed in one or other form according to the conditions (*nimittānurūpasya pratyayasyotpadyamānasya tena tenātmanā heturbhavati* IV 15). This interpretation corresponds strictly with the Buddhist conception.<sup>7</sup> In Buddhist philosophy<sup>8</sup> *pratyaya* is identical with *kāraṇa* and *hetu*. Dasgupta<sup>9</sup> presumes, that the word *pratyaya* in the sense of a cause can be hardly found in another philosophy than the Buddhist.

<sup>5</sup> W. Ruben: Die Nyāya-sūtras, Textübersetzung, Erläuterungen und Glossen, Leipzig 1928.

<sup>6</sup> *indriyaprāṇālikayā cittasya bāhyavastūparāgāttadviśayā ... vṛttih pratyakṣam pramāṇam.*

<sup>7</sup> In the Buddhist philosophy the non-perception of dharmas is caused by the absence of *pratyaya*. Thus when I fix my attention on one thing, other things are not seen then, not because they are non-existent, but because the conditions which would have made them visible were absent. (See Dasgupta: A History of Indian Philosophy II, p. 124).

<sup>8</sup> In Buddhism *pratyaya* as condition and *kāraṇa* as cause are used synonymously. (Ščerbatskij: Buddhist Logic II 126, 262, etc.).

<sup>9</sup> a. a. O. II, p. 395.

He draws the attention to the medical literature, where Caraka mentions *pratyaya* in the sense of cause among the eight synonyms of the cause (*hetu*) of illness. From this he derives, that *pratyaya* was used in the place of *hetu* in earlier literature which was the source of Caraka's observations. He refers in the first place to the *Āyur-veda* literature where the cause of illness was frequently the subject of discussions.

Dasgupta's suitable remark must, however, be supplemented by the fact that also in Yoga-philosophy *pratyaya* is the cause (*kāraṇa*, *hetu*, *nimitta*) according to the commentators.<sup>10</sup>

Thus for instance in the explanation of *nidrā* as a sleep (I 10) with which we shall deal later, *pratyaya* has the meaning of *kāraṇa* — cause, which is explicitly mentioned by *Vācaspati*. *Vyāsa* says to II 28, that in Yoga-philosophy (*śāstra*) there are nine different causes (*kāraṇa*) among which he also mentions *pratyaya*: “*pratyaya-kāraṇam dhūmajñānamagnijñā, nasya* — the perception of smoke is the impulse, or the cause of the (indirect) perception of fire.”

The original meaning of *pratyaya* as an impulse or cause is evident e. g. from the interpretation of the commentators regarding *gunas* (II 15).<sup>11</sup> The *gunas* — the three basic elements of nature — are the source of three impulses which in experience (*bhoga*) are expressed in one undistinguished form according to the dominant *guṇa*. *Vyāsa* says: “*Evamete gunā... sukhaduhkhamohapratyayāḥ sarve sarvarūpā bhavantīti. Guṇapradhāna-bhāvakṛtaśvēṣā viśeṣa iti* — And these *gunas* have the impulses in pleasure, pain, and deceptive indifference, and every impulse has the form of all the others. The distinction between them depends on the circumstance which of the *gunas* becomes dominant.” *Vācaspati* adds that the *gunas* evoke three impulses, although there is in reality only one, e. g. the form of pleasure.

Finally in the mnemotechnical verse of *Vyāsa* III 15 it is also said that “*cittasya dvaye dharmāḥ paridṛṣṭāścāparidṛṣṭāśca. Tatra pratyayātmakāḥ*

<sup>10</sup> The commentators of Yoga-sūtras identify *hetu* with *kāraṇa*, e. g. in II 23, 24. Patañjali uses the expression *hetu* [*tasya* (sc.: *samyogasya*) *hetur avidyā*], whereas the commentators use the expression *bandhakāraṇa*, *samyoganimitta*, so that *avidyā* is the cause (*hetu* = *kāraṇa*, *nimitta*) of the connection of the subject with the object. *Vācaspati* to II 18 identifies *pratyaya* with *nimitta* and refers to IV 3, where *nimitta* is mentioned.

<sup>11</sup> *Guṇa* (*gunayati* — to invite, address, advice, multiply from *gr-nó*, ide. baze gere — to twist, wind) has in Sanskrit three meanings. 1. quality, 2. rope, 3. not primary. It signifies the qualitative substance, ultimate subtle entities in the sense of ropes. All things are but the modification of three *gunas* or elements of nature. Yet the real nature of the *gunas* is never revealed by the sense-perception. What appears to the senses are but illusory characteristics like those of magic (*māyā*, *Vyāsa* to IV 13). The real nature of the *gunas* is thus revealed only by true knowledge — *prajñā*. In Indian philosophy three *guṇa* — components are given, i. e. *sattva* — intelligence-stuff, plastic entity; *rajas* — movement, energy-stuff; *tamas* — tendency of obstruction, mass-stuff. Patañjali mentions in his text only the *sattva* — the existent.

The commentators adjudge to *gunas* three dispositions (*śīla*): *prakāśa* — light, *kriyā* — movement, *sthiti* — *inertia* (II 18). Patañjali differentiates the tangles, *guna-periods* (*guṇaparvāṇi*). The final aim of Yoga is in the fact, that *gunas* are telically empty and carry out no purpose for the subject (IV 34). *Gunas* and the subject are not dependent on one another and in this is the basis of independence, liberation, and redemption (*kaivalya*).

*paridṛṣṭāḥ. Vastumātrātmaḥ paridṛṣṭāḥ* — The external aspects of the mind-stuff are two-fold: perceived and unperceived. Of these two, the perceived have as their essence impulses; these that are unperceived have as their essence real things only.” This corresponds to Patañjali’s conception IV 17: “*taduparāgāpeksitvāccittasya vastu jñātājñātam* — owing to the fact that the consciousness is (from the thing) coloured or is disregarded, the thing is known or is unknown.” Accordingly impulses originate from objects or as Patañjali, and the commentators say elsewhere (III 21) the body and thus every object has *grāhyaśakti* — the power to be grasped, to be known. In IV 17 Vyāsa compares the things to a magnet, as that they are bound to *citta* as to iron, and thus colour the *citta*. Every source also transmits impulses, powers, which are grasped by the *citta* and are possessed by its apparatus.

The commentators infer to *pratyaya* the meaning of a cause or impulse and thus the meaning of the initial phase of the process of acquiring knowledge, i. e. they adhere to the initial meaning of *pratyaya*.<sup>12</sup>

### b) *Pratyaya as the final phase.*

On the other hand the commentators identify *pratyaya* with its final phase, i. e. with *jñāna*, *vṛtti*, *cittasattva*, *buddhisattva*, because they interpret *pratyaya* as *bauddhapratyaya* — presented-idea of the thinking substance, i. e. in the meaning of a presented-idea.

The commentators identify *vṛtti*<sup>13</sup> — commotion of the mind with *pratyaya* — impulse in the explanation of *nidrā* I 10, where Patañjali differentiates quite accurately between both these conceptions, as explained in details later on. Their identification of *vṛtti* with *pratyaya* induced Vyāsa to the assertion, that *nidrā* is *pratyaya* and that for this reason it must be in *samādhi* controlled like any other impulse (*sā ca samādhāvitara pratyaya-vanni rodhavyeti*), although Patañjali in the formulation of Yoga mentions *citta-vṛttinirodha*.<sup>14</sup>

<sup>12</sup> Bhoja in I 19 mentions that *pratyaya* and *kārana* is the same, and in II 20, III 2, 17 the *jñāna* and *pratyaya* is the same.

<sup>13</sup> *Vṛtti* from *vrt-*, *varttate* — to turn, revolve, roll, to be, exist, is connected with Slavic expression *vrtěti* (\*vert, \*vort), Czech *vrátili*, *obrátili*, *obratel*, Indo-european basis \*uer-t, Lithuanian *versti* — to turn, latin *verto*, versus — against, i. e. turned against somebody, Sanskrit *vartate* — to revolve, originate, gothic *werthan*, German *werden*. W. Ruben (Gesch. d. Ind. Phil. p. 142) asked: “Hat man die Kreise um einen ins Wasser gefallenen Stein beobachtet?” Spontaneously — the dialectical expression *vṛtti* — Fluction he explains as “eine innerliche Bewegung der Materie der Denk- und Sinnesorgane, zu deren annähernden Verdeutlichung man den modernen Begriff der longitudinalen Welle heranziehen kann.” We can, however, imagine it as the birth of a pearl. A grain of sand gives the impulse to the covering and the development of a pearl. In the same way an external impulse stirs up the mind-stuff. *Vṛtti* means a commotion of the mind, mental vibration, stimulation, fluctuation.

<sup>14</sup> *Citta* from *cit*, *cetati* — to perceive, think, consider, means the mind-stuff, the faculty of reasoning. With this expression the commentators connect *manas* and *buddhi*. *Buddhi* (from *budh* — to wake up, recover, consciousness) — intelligence means in Nyāya an object of right knowledge and is defined as the power of forming and retaining conceptions and general notions, the faculty of the mind to discern, judge, and understand the meaning of knowledge. *Manas* (from *man* — to think, imagine) — mind, the

The shift of the impulse to the commotion, i. e. to the identification of *pratyaya* with *vṛtti* induced the commentators to identify *pratyaya* with *baudhapratyaya*, *cittasattva*, *buddhisattva*. Thus Vācaspati says to IV 27, that *pratyaya* is that by which a thing is presented to the subject, that it is *cittasattva* — the substance of consciousness. Also according to Vyāsa to I 11 *pratyaya* (presented-idea) shines forth in consciousness in a definite form (*ākāra* = *rūpa*) and initiates the corresponding impressions. This leads to the interpretation II 20, that the subject looks upon the presented-ideas, which were created by the thinking substance (*pratyayanam baudhamanupaśyati*).<sup>15</sup>

J. H. Woods<sup>16</sup> is thus justified in the interpretation of the conception of the commentators that the subject looks at the reproduced forms and not on the object itself. The object as such is not directly perceived, but only its form as reproduced in the thinking-substance (*buddhisattva*).

The shift in the meaning of *pratyaya* was mainly due to the circumstance, that Vyāsa took over some basic psychological conceptions from the Sāṃkhya-philosopher Vindhya-vāsī (1<sup>st</sup> half of V. century A. D.). According to E. Frauwallner,<sup>17</sup> Vyāsa under the influence of Vindhya-vāsī did not differentiate between the three psychological conceptions *manas*, *citta*, *buddhi*, but identified them and to a greater part marked them as *citta*.

In contrast to this Patañjali differentiates them in the sense, that *manas* stands in the relation to the sense-organs as the central-organ, *buddhi* stands in the relation to the subject as a realized thought. *Citta* is then the name for the subjective apparatus with a memory fund which stores the experienced impressions. These impressions (*samskāras*, *vāsanās*), which create the seed (*bija*), are the substances of the *citta*. External or internal impulse stimulates the surface of the mind-stuff — *citta*, and this gives rise to commotions of the mind-stuff (*cittavṛtti*).

The commentators on the one side preserve the original meaning of *pratyaya* as an impulse from a source, and on the other side attribute to *pratyaya* also its later meaning which expresses the last phase of knowledge. This leads to a contradiction which was pointed out by J. W. Hauer<sup>18</sup> at another opportunity. He says, that “the conclusions made hitherto prove, that we must avoid to believe everything that the commentators of Yoga-sūtras say. We must fight for an independent explanation of the original text even if we have respect for these old authorities”.

It is therefore necessary to analyse once again the original text and

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individual mind. *Manas* differentiates, integrates, and associates the sense-data. The nature of *citta* is to produce combinations, the result of which are *vṛttis* — commotions, and *jñāna* — knowledge. The subject is identified with *vṛtti* (*sārūpya*) and is aware of them as of his own thoughts, his knowledge (*svabuddhi*).

<sup>15</sup> Bhoja to III 17 also identifies *pratyaya* with *jñāna* and *buddhivṛtti*: *pratyayo jñānam viṣayākārā buddhivṛttih* — *pratyaya* means knowledge, i. e. a modification of *buddhi* — internal organ in the form of an object.

<sup>16</sup> a. a. O., p. 31.

<sup>17</sup> Geschichte der Indischen Philosophie I, p. 411.

<sup>18</sup> Das IV. Buch des Yogasūtra in Studia Indo-Iranica, Ehrengabe für Wilhelm Geiger, 1931, Leipzig, p. 131.

ascertain to what extent the interpretation of the commentators is justified especially in the case of the meaning of *pratyaya*. From their different interpretations only we can conclude, that the text of *Yoga-sūtras* is not uniform but that it is composed of various texts in which we can also find different meaning of the expression *pratyaya*, and also, that Patañjali adheres to idealism and looks at the world as his own idea. It is necessary to confront their conception with the original text and discover the meaning which was in the mind of Patañjali, the author of the text.

### *III. Pratyaya in the original text of *Yoga-sūtras*.*

First of all we must consider the original conception of Patañjali. Then in a detailed analysis of individual sūtras, containing the word *pratyaya*, we shall direct the attention to the meaning of *pratyaya* in order to ascertain the sense of these sūtras and to explain them.

Patañjali noted down how he imagines the origin of *pratyaya*, its relation to *vṛtti* and the nature of *pratyaya*.

According to Patañjali the *pratyayas* arise from *sam-skāras*:<sup>19</sup> IV 27 “*tacchidreṣu pratyayāntarāṇi saṃskāre bhyaḥ* — in the intervals of this (i. e. citta after differentiating the subject from the object) there are other impulses coming from subliminal-impressions”. Negatively it is expressed by Vyāsa to IV 28: “*pūrvasam-skāro na pratyaya prasūrbhavati* — former impression does not evoke impulses”. The nature of these impulses from impressions is mentioned by Vyāsa to IV 27: “*pratyayāntarāṇyasmīti vā mame ti vā jānāmīti vā na jānāmīti vā* — other impulses, either “It is I” or “It is mine” or “I know” or “I do not know”. They are thus impulses of one's own existence, own consciousness, changes of the mind-stuff.

The escape from these impulses is described by Patañjali in IV 28:

<sup>19</sup> *Saṃskāra* (from *saṃ* — together, -*s-kāra* — action, from *karoti* — to put together, form, make) has on the one hand an active meaning: improving a thing, adjusting, constructing, and on the other hand a figurative meaning: aggregation that which is constructed or adjusted thus the impression after stimulation. *Saṃskāras* cause a new life and determine its quality. They are thus creating forces, impressions. According to Sāṃkhya-philosophy every mental process marks a separate impression, which germinates into a new process as soon as there are suitable conditions and suitable time. These forces are the expression of the eternal law, of that concealed power which is called *karma* — the deed. The world is thus the undulation of the deed energy. The deed disappears but its energy remains to give the impulse to another deed (V. Lesný: Buddhism, 1921, p. 121 and further). *Vāsanā* is another expression for impression (from *vas* — stay, dwell). *Vāsanā* means perfuming and is related to causative *vāsyati* — to introduce another quality, but especially fragrant odour, to perfume. Dasgupta thinks (a. a. O. I, p. 263), that the word *vāsanā* seems to be a later word. The commentators of *Yoga-sūtras* use both identically. But *vāsanā* generally refers to the tendencies of past lives most of which lie dormant in the mind. But *saṃskāras* are the sub-conscious states which are being constantly generated by experience. *Vāsanās* are innate *samskāras* not acquired in this life. (A History of Indian Philosophy I, p. 263.) *Saṃskāras* are subliminal impressions from which the present life develops and are acquired in this life. They correspond to Pavlov's acquired conditional reflex. *Vāsanā* corresponds to inherent instinct i. e. inherent unconditional reflex.

"*hānameśām kleśavaduktam* — the renunciation of these, the escape from them is described as being like (the escape from) the *kleśas*."<sup>20</sup>

Patañjali states in IV 10, that the impressions have desire, will (*āśis*). Already P. Deussen<sup>21</sup> perceived clearly the connection of *samskāras* and *vāsanās* with *kleśas* and considers *āśis* and *kleśas* identical. This identification is wholly in the sense of *sūtras* and consequently in the sense of the explanations given by the commentators. Patañjali says in IV 10: "*tāśamanāditvam cāśiso nityatvāt* — these (*vāsanās*) have no beginning since the will is permanent." Vyāsa identifies *ātmāśih* — the craving for one's self with *kleśa abhiniveśa* — the instinctive will to live (II 9). Thus the impressions and the *kleśas* have according to him the same will, desire.

In the case of *kleśas* Patañjali differentiates between four grades of intensity, the states (*avasthā*) in which they manifest themselves: 1. *prasupta* — dormant, 2. *tanu* — attenuated, reduced intensity, 3. *vicchinna* — intercepted, 4. *udārāna* — sustained, active manifestation. The commentators then also mark the fifth grade as *sūkṣma* — subtle (II 10), *dagdhabījāvasthā* — the burned state of the seeds. In this state (to II 4) although the *kleśas* are still existent, the vitality of the seed is said to be already burned (*satām kleśānām tadā bijasāmarthyam dagdhamiti*). Even if they come into touch with the object, there is no awakening of these (*viśayasya sammukhībhāvepi sati na bhavatyeshām prabodha iti*). In the dormant state they rest in the mind merely potentially (*saktimātra*) and they can awaken by coming face-to-face with the object. In the state of attenuated intensity they are overpowered by the cultivation of their opposites (*pratipakṣabhāvanopahatāḥ*). In the intercepted state only one *kleśa* is effective in a certain direction and by this repels and interrupts the action of the others. In the active sustained state the *kleśa* exerts full influence on some object.

Vācaspati at the end of II 4 notes down a verse, according to which the dormant *kleśas* are possessed by those, who live in *prakṛti*; for yogins they are attenuated; in the case of others who are attached to objects, they are intercepted or sustained.

According to commentators the *kleśas* are marked with vitality and power (*sāmarthya*, *sakti*) which clearly expresses the idea of will, and desire in *vāsanās* and *samskāras*. These ripen according to definite laws of fruition (*vipākānuguṇa* IV 8), according to *karma* fruition (*karmavipāka* II 12, 13), and determine the birth, length-of-life and experience (*jātyāyur-bhogāḥ*). *Vāsanās* and *samskāras* form the memory fund (*smṛti* IV 9).

<sup>20</sup> *Kleśa* from *kliśnāti* — to press, squeeze, torment, astrict, trouble (Zubatý: Studies and Articles, Prague 1945, p. 28). It is connected with Slav. *klěštiti* — astrict, from that *klesnjá* (litter.—cliché)—claw, Ukrain. *kliša*, *klišna*—scissors. Old Czech *kleše*, Old Slavic *klěšta*, Pol. *kleszcze* — tongs, the original meaning was the loop, the constriction. Vācaspati to II 19 interpretes *kliśnāti* as *duḥkham karoti*. According to Patañjali II 24 *kleśa* *avidyā* is the cause of clasping the subject with the object (*samyoga*). *Kleśa* thus clasps both as in tongs. *Kleśa* means squeeze, clasp, loop, and in this sense it is used by Patañjali. The consequence of the squeeze is to torment, molest, suffer pain, and from that *kleśa* means pain from disease, affliction, but also worldly occupation, trouble, etc.

<sup>21</sup> Allg. Geschichte d. Philos. I 3, p. 552, 557.

The impulses that cause the commotion of the mind-stuff come from this fund.

The nature of these impulses is śaktic, vital, and manifests itself only on direct contact with the object. Patañjali defines it in the way that the object colours the mind (IV 17 *uparāga*), i. e. that what comes from the object or impressions i. e. impulse causes the colouring i. e. the affecting of the mind. Also the impressions are coloured because *citta* is diversified by countless impressions of various colours (*asamkhyeyavāsanābhīścitraṁ* IV 24).

Patañjali imagines the relations of the object to the mind-stuff and to the subject as follows: The object is independent of the mind, but the mind is dependent on the object in that the object must first colour, or affect the mind. This colouring creates the impulse, which evokes the commotion (*pratyayālambanā vrttiḥ* I 10). The object, however, has five forms III 44: coarse — *sthūla*; essential, general — *svarūpa*; subtle — *sūkṣma*, inherence — *anvaya*, and telic purposiveness — *arthavattva*. These five forms of objects correspond in reality to the five forms of *cittavruttis*. Every commotion is five-fold (*vṛttayah pañcatayyah* I 5), i. e. the first form is a direct sense perception, the second form is indirect, the third form is verbal or abstract, the fourth form is inhibited, emotional, the fifth form is that of the memory which is unaliable and entirely subjective.

The commotion of the mind which has been aroused by an impulse from some source, reflects not only the object in its impulse, but the consciousness combines these impulses with the impulses from kleśas and impressions. The subject interferes with the combinations by colouring the mind-stuff, so that the mind-stuff is coloured both from the object-of-sight, and from the seer, subject (*drastrdrśya-uparāgtam cittam* IV 23).

In this way the subject is identified with the commotion of the mind, so that the subject is in conformity with the commotions of the mind-stuff (*vṛttisārūpya* I 3). The task of the Yoga is to eliminate the subordinacy of the subject and free it from the fetter, by which it is bound, to the consciousness and to the world in general. In the Yoga procedure the knowledge is attained independently on the *citta*, as one is aware of the reality without the interference of the *citta*, which then shines as a crystal and only reflects the reality. This is achieved by impulses which inhibit the commotion of the mind-stuff.

In the process of acquiring knowledge the subject has following functions : 1. it always knows the commotions of the mind-stuff,<sup>22</sup> 2. it becomes aware of them,<sup>23</sup> 3. it surveys and looks for the impulses.<sup>24</sup>

<sup>22</sup> IV 18: *sadājñātāścittavṛttayastatprabhoh puruṣasyāparināmitvāt* — the commotions of the mind-stuff are always known, because their governor, the subject, does not undergo changes.

<sup>23</sup> IV 22: *citerapratisamkramāyāstadarśāpattau svabuddhisamvedanam* — owing to the fact, that the intellect which, however, does not come into activity of the consciousness, takes part in its action and causes the awareness of its own thought.

<sup>24</sup> II 20: *draṣṭā drśimātrah śuddho'pi pratyaya-anupaśyāḥ* — the seer (subject) is only a vision and, although, he is clear (from the object), he surveys the impulses.

The survey of the impulses, i. e. the looking for the impulses leads to the knowledge of the true nature of the powers of the proprietor and of the property, i. e. it leads to the differentiation of the dependence of the subject and the object. This dependence is caused by the undifferentiating *kleśa avidyā*.<sup>25</sup>

In the process of acquiring knowledge an important rôle is played by *pratyayas* — impulses. Patañjali differentiates between the following impulses: *abhāvapratyaya* in *nidrā* I 10, *virāmapratyaya* in *asamprajñāta nirodha* I 18, *bhavapratyaya* I 19, *tulyapratyaya* in *cittaparināma* III 12, further *pratyaya* in the case of *bhoga* III 15, in *dhyāna* III 2, in *para-cittajñāna* III 19, in *sarvabhūtarūtajñāna* III 17, in *draṣṭā* II 20. The commentators then mention *upāyapratyaya* to I 20.

I shall deal successively with all the sūtras where these *pratyayas* occur, with a special regard to the interpretation of the commentators in order to ascertain the meaning of *pratyaya* in the individual sūtras and in order to draw the corresponding conclusions.

To enable correct understanding I shall also mention the results of the physiologists in the sphere of experiments regarding higher nervous activity.

### 1. *Nidrā with abhāvapratyaya.*

Patañjali classifies *nidrā*<sup>26</sup> under the five forms of the commotion of the mind-stuff. In I 10 he then gives the following formulation: “*abhāvapratyaya-ālambanā vrttir nidrā* — the slothful form is a commotion supported by the impulse of negation”.

The commentators base their comments on another formulation of the *vṛttis* than Patañjali, according to which every *vṛtti* is five-fold (*pañcatayyah*). According to the commentators there are five commotions, quite independent, and in addition, in the case of *pramāṇa* — direct perception, they differentiate three independent *vṛttis* (i. e. perception, inference, and verbal communication), so that according to them there are altogether seven *vṛttis*, which, however, is in conflict with the basic text.

H. Jacobi<sup>27</sup> adheres to the explanation of the commentators and even says that the author of the text did not know Sanskrit correctly, because he used the incorrect expression *pañcatayyah*—five-fold instead *vṛttih pañcatayī*, i. e. that there are five commotions. The grammarian Patañjali could not have done such a grammatical mistake according to Jacobi, and for this reason Jacobi does not regard him as the author of the Yoga-sūtras text.

<sup>25</sup> II 23: *svasvāmiśaktyoh svarūpopalabdhihetuḥ samyogah*. II 24: *tasya hetur avidyā* — The connection (of the subject and the object) is the cause of the recognition of the true nature of the proprietor's power and his property's power. The cause of this connection is undifferentiating *kleśa avidyā*.

<sup>26</sup> *Nidrā* means sleep, sleepiness, drowsiness, sloth, and is related with *drai*, *drāyati* — to sleep.

<sup>27</sup> Deutsche Literaturzeitung 1922 und Sitzungsberichte der Preuß. Akademie der Wissenschaft 1929 Über das ursprüngliche Yogasystem, pp. 11 (589).

According to commentators and Jacobi, Patañjali was to have said that there were five *vṛttis*, but in fact Patañjali said that every *vṛtti* is five-fold, i. e. that it had five forms. A correct analysis of *nidrā* shall also contribute to the solution of this problem.

The commentators consider *nidrā* as a real sleep. Vyāsa explains it as follows: “*Sā ca samprabodhe pratyavamarśātpratyayaviśeṣah. Katham? Sukhamahamasvāpsam. Prasannam me manah prajñām me viśāradīkaroti. Duḥkhamahainasvāpsam styānam me mano bhramatyanavasthitam. Gādham mūḍho ‘hamasvāpsam. Gurūni me gātrāṇi. Klāntam me cittam. Alasam musitamiva tiṣṭhatīti. Sa khalvayam prabuddhasya pratyavamarśo na syāda-sati pratyayānubhave. Tadāśritāḥ smṛtayaśca tadviṣayā na syuḥ. Tasmāt-pratyayaviśeṣo nidrā. Sā ca samādhāvitarapratyayavannirodhavyeti I 10.* — And this *nidrā* by profound meditation becomes upon awakening, a special kind of impulse. How is it that one can reflect: ‘I have slept well, my mind is calm, it makes my understanding clear.’ ‘I have slept poorly, my mind is dull, it wanders unsteadfast.’ ‘I have slept in a deep stupor, my limbs are heavy, my mind remains unrefreshed and languid and as if it were stolen from my grasp.’ Indeed, a man who has just awoke could not have such meditation had there not been such experience nor would he have the memories based upon it and related to it. For this reason the sleep is a particular kind of impulse. And in *samādhi* it must be suppressed as any other impulse.”

Vyāsa thus takes *nidrā* for a sleep which is a particular kind of impulse. He thus identifies commotion with the impulse (*vṛtti* with *pratyaya*). Nidrā according to him is active, because it is an experience which leaves an impression, which can be recalled after awaking. J. H. Woods<sup>28</sup> correctly states that the sleep is a positive experience and not, as some Vedāntins, Udayana for instance, should teach, the absence of a commotion.

The mentioned interpretation given by Vyāsa was not found satisfactory and gave rise to objections, which were registered by Vācaspati. The first objection refers to the problem whether *nidrā*—sleep is *cittavṛtti*, i. e. whether it is a form of understanding. Also P. Deussen<sup>29</sup> is surprised and says: “Es mag befremden, diesen unter den intellektuellen Funktionen aufgezählt zu finden; an den Traum (*svapna*) zu denken, sind wir wohl nicht berechtigt, da dieser in I 38 vom Schlaf deutlich unterschieden wird, und auch die I 10 gegebene Definition der *nidrā* als einer Funktion des Cittam, welche sich auf keine Vorstellung einer Realität stützt, erlaubt nur, an die im Schlaf stattfindende Einstellung seiner Funktionen zu denken, welche hier als eine besondere, nur negative Funktion aufgestellt wird.”

But according to the commentators there is also the negative function of *citta* in the case of *viparyaya*—the indirect perception. According to the commentators, in the case of *pramāṇa*—the direct perception, the object is a real, positive, and existing fact (*bhūtārtha, sadviṣaya*), whereas in the case of *viparyaya*, as its contrary, it is an unreal and not existing fact, so that ac-

<sup>28</sup> a. a. O., p. 29.

<sup>29</sup> a. a. O. I 3, p. 556.

cording to Vācaspati such an understanding is worthless (I 8). According to this the citta should have a negative function also in the case of *viparyaya*, so that Deussen's explanation does not define correctly the meaning of the word *nidrā*.

Neither does the identification of *vṛtti* with *pratyaya* correspond with the basic text. Vyāsa makes the two expressions identical and refers to *pratyayavannirodha*, although, Patañjali speaks about *cittavṛttinirodha* (I 2), and differentiates *vṛtti* from *pratyaya* (I 10). But not even the statement by Vyāsa that *nidrā* is a particular kind of *pratyaya*, means anything because Patañjali differentiates various kinds of *pratyayas*, such as *virāma-*, *bhava-*, *tulyapratyaya*, etc.

The objections against the explanations given by commentators were indisputably supported also by the fact, that Vācaspati does not mention a special state of *nidrā* as a sleep. In I 36 he mentions the following states: *jāgaritasthānam*—locus of the waking state, *svapnasthānam*—locus of dream, *susuptisthānam*—locus of deep sleep, *turiya*—locus of the fourth state of the deep sleep. They are situated in the Lotos of the heart, which is also the locus of the mind-stuff (*cittasthānam*). Vācaspati, however, does not mention the *nidrāsthānam*—the locus of *nidrā*, sleep.

Vācaspati defends himself against the objections by pointing out, that Patañjali in his formulation explicitly mentions in the case of *nidrā*, that it is *vṛtti*. But not even this can support the explanation by the commentators. Patañjali enumerates in I 6 five forms of *vṛttis*: *pramāṇa*, *viparyaya*, *vikalpa*, *nidrā*, *smṛti*. Solely by this arrangement he did justice to this problem. If he then refers in *nidrā*, that it is *vṛtti*, then it is not possible to interpret this emphasis as a contradiction of a possible or expected objection. The meaning of this is quite different as we shall point out later on.

Vācaspati was fully aware of the correctness of the objections against Vyāsa's explanation, and he therefore tries to complete the explanation. H. Jacobi<sup>30</sup> says nevertheless that Vācaspati's explanation is worthless because it is based on the developed theory of Sāṃkhya about *gunas*. This condemnation is not fully justified even though Vācaspati in his interpretation does not define correctly the Patañjali's formulation of *nidrā*, and even though his interpretation is full of contradictions.

On the one hand he says that *nidrā* is *vṛtti*, and at the end he says that *pratyayānubhava*—the experience of the impulse means the experience of a cause of the negation of the commotion in waking or in dream. He then mentions another objection, why the sleep is not to be considered merely as an absence of *vṛttis* in general, as is the case in *kaivalya*—independence on objects. In waking *vṛtti* other *vṛttis* manifest themselves besides *nidrā* and must be all suppressed because they are the enemies of *saṃādhi*. The sleep, however, is *ekāgrya-vṛtti*—a concentrated commotion which is one-pointed and it is not the enemy of the *saṃādhi*. Vācaspati replies to this, that *nidrā*

<sup>30</sup> Über das ursprüngliche Yogasystem I, 1929, p. 14 (592).

has the *guna* quality of *tamas*, which covers the *sattva*-substance of thinking. If the *tamas* is in company with *sattva* we have the feeling of a good sleep, on awaking. In the company of *rajas* there is the feeling of a bad sleep and if the *tamas* preponderates over both, there is the feeling of an unquiet, dull sleep. Nevertheless he says in I 38 that in this sūtra the *nidrā* is to be understood as having the quality of *sattva*, and that it corresponds with Brahma's state of deep sleep (*suptāvasthā*).

Vācaspati completes *abhāvapratyaya* as *jāgrat-svapna-vṛtti-abhāvā-kāraṇa*, i. e. the impulse of the negation means the cause of the negation of the waking and of dreaming commotions.<sup>30a</sup>

In this way the subject is in a deep sleep and inwardly conscious.

However, also this interpretation is in conflict with the formulations of Patañjali. The subject really knows the *vṛttis*, is aware of them, and surveys the impulses. According to the interpretation of the commentators the subject is aware of and recognizes the commotion and examines the impulses in *nidrā* as sleep only after awakening. According to Patañjali, *nidrā* is a part of the waking state and it is not a deep sleep.

It seems, that the commentators owe us the correct interpretation of *nidrā*, and for this reason their interpretation has been rightly attacked and the objections were justified. But in spite of that the commentators preserved threads in their interpretation, which lead to a correct comprehension of Patañjali's formulation of *nidrā*. In the first place they emphasize, that *nidrā* is an active *vṛtti*, the contents of which are the emotions; further, that *nidrā* is the negation of other *vṛttis*, i. e. that it is a form sui generis; that it is similar to *saṃādhi* or *ekāgravṛtti* or *kaivalya*; further that it leaves an impression in the memory fund—*smṛti*, as any other form; further in that they do not mention any special locus of *nidrā*; that they identify *pratyaya* with *kāraṇa*; and in saying that it is some kind of a subconscious process.

I have already deduced from Patañjali that the subject is aware of the commotion and that he understands it, and that he surveys the impulse, i. e. that *nidrā* must belong to a conscious, wakeful state and that it is not a deep sleep. This is proved by the classification of *nidrā* among the means of attaining an undisturbed calm of the mind-stuff (*cittaprasādana* I 33-40). The consciousness is distracted e. g. by disease, caused by a disorder in secretion, in sense-organs, by various corporeal and mental troubles, by nervousness, by bad respiration etc., which Patañjali calls the obstacles and distractions of the mind-stuff (*antarāya*, *cittavikṣepa* I 30, 31). In order to check them he recommends various methods including *nidrāsvapnajñāna*—the knowledge or experience with *nidrā* and dreams. This method is equivalent to *dhyāna*—the narrowing of impulses (I 39, II 2). All these methods are marked by

<sup>30a</sup> Vacaspati defines *virāma* — cessation as *vṛttināmabhāvah* (to I 18). According to this the *asamprajñāta nirodha* would be gained only by control of *nidrā* which is *jāgratsvapnavṛttināmabhāvah* (to I 10). But even this result shows us the commentators' incorrect explanation of *nidrā* because it contradicts the basic text.

practice—*abhyāsa* and manifested by constant exertion to achieve permanence of calm, in which there is no place for *cittavṛttis*.<sup>31</sup>

*Nidrā* and *svapna*—dream are therefore active states of consciousness. *Svapna* is classified by the commentators to *smṛti*—a form of memory. According to Upanisads<sup>32</sup> the subject in dream creates vehicles, roads, rivers, lakes, joy and grief, he creates just as the Lord various persons independently of the exterior reality. A feature of *svapna* is the inhibition of exterior reality and an active creation from the interior reality.

*Nidrā* is thus necessarily the restriction of impulses from the inhibited exterior reality because it has common features with *dhyāna* and *svapna*. The activity of *nidrā* manifests itself in that the impulse gives rise to *vṛtti*. *Abhāvapratyaya* is thus an impulse from the negation of the exterior reality, i. e. from objective negation. This impulse is a support for evoking commotion.

*Abhāva*—negation is thus not related to the *vṛttis* of wakeful or dreaming states (*jāgarita-svapna*), but to the negation of the object. This can be also derived from Patañjali's formulation of the five forms of *vṛttis*, built into the following scheme:

<i>pramāṇa</i> . . . . .	<i>(vastu)pratyakṣa</i> . . . . .	the object is before particular, the eyes . . . . .	individual signs
<i>viparyaya</i> . . . . .	<i>atadrūpa</i> . . . . .	the object is indirectly generis, perceived . . . . .	common signs
<i>vikalpa</i> . . . . .	<i>vastuśūnya</i> . . . . .	objective vacuum . . . . .	abstract signs
<i>nidrā</i> . . . . .	<i>(vastu)abhāva</i> . . . . .	objective negation . . . . .	negative signs
<i>smṛti</i> . . . . .	<i>(vastu)anubhūta</i> . . . . .	objective experience . . . . .	subjective (telic) signs.

If the formulation of *nidrā* should make sense, it is necessary to determine the contents of the objective negation (*abhāva*) from which the impulses arise and the contents of the *vṛtti* created by this impulse.

The commentators refer to the content of commotion by stating that it contains sensation—*sukha*, *duḥkha*, *styāna* which, according to Vācaspati, corresponds to *gunas*: *sattva*, *rajas*, *tamas*. By so doing the commentators suggest further direction for the determining of *vṛtti* in *nidrā*.

Vyāsa says to I 11 that all the *vṛttis* have as their being pleasure, pain, and infatuation (*sarvāścaitā vṛttayah sukhaduḥkhamohātmikāḥ*). He says further that these features are explained under *kleśas* such as *rāga*—desire which dwells upon pleasure, *dveṣa*—aversion which dwells upon pain and *moha* as *avidyā*, the undistinguishing *kleśa*. This shows that Vyāsa in fact adjudges to *nidrā* only the *kleśavṛtti*, i. e. emotional commotion or that the content of *vṛtti* in *nidrā* is made of *kleśa* (*rāga*, *dveṣa*, *avidyā*). This consequence does not contradict in any way the original text. Patañjali says

<sup>31</sup> *avṛttikalacitta*, Vyāsa to I 13, 40.

<sup>32</sup> E. g. Brhadāraṇyaka — Up. 4, 3, 9 etc.

about *kleśas* in II 11: *dhyānaheyāstadvṛttayah*—the commotions of these (*kleśas*) should be escaped by means of restricting or narrowing the impulses.

This was the reason why Patañjali could classify *nidrā* as an equivalent method with *dhyāna* in I 38.

Besides in the case of *cittavrtti* he says I 5: “*vṛttayah pañcatayyah klistāklistāḥ*—every commotion is five-fold either with or without manifested *kleśas*.” In the *cittavrtti* both the objective aspect of the content, and the *kleśa*-emotional aspect are manifested. In the case of *nidrā* there is only the objective negation, so that it manifests only *kleśavṛtti*.

If we further follow the thread in the interpretation of the commentators, we also find connection in determining the impulse of negation—*abhāvapratyaya*.

*Abhāva* in the Indian conception does not mean nonexistence. Vyāsa says to II 5, that *avidyā* just as *amitra* is to be conceived as a really existing object (*vastusatattvam*) and continues: “*Yathā nāmitro mitrābhāvo na mitramātram kim tu tadviruddhaḥ sapatnah... Evamavidyā na pramāṇam na pramāṇābhāvah kim tu vidyāviparitam jñānāntaramavidyeti* — Just as a foe is not a negative friend and not something amounting to a friend, but the opposite of this, a rival... Precisely so *avidyā* is not a direct perception nor the negation of direct perception, but the reverse of knowledge, an undifferentiating knowledge.” Analogically *abhāva* is not the negation of the existence nor is it that which does not relate to existence but it is another kind, an opposite form of objective existence which really exists.

What is really the meaning of *abhāvapratyaya*—the negative impulse in a positive sense, i. e. what kind of impulse do we mean here?

For illustration I shall mention here several examples from the commentaries to *Yoga-sūtras*, in which one can differentiate between several kinds of impulses.<sup>33</sup> We shall also get acquainted with other special kinds of impulses in later chapters.

In the first place it is necessary to differentiate between a direct and an indirect impulse as for instance between that of a real moon and of its reflection in water, or of a face and of the reflection of the face in water, mirror, etc. (Vācaspati to III 17, 35). The moon and the face give direct impulses and their reflections indirect ones if we look into a mirror or water. This is the essential difference between *pramāṇa* and *viparyaya*.

Further it is necessary to eliminate a non-existing impulse from an existing thing as mentioned by Vācaspati in II 22, III 47: “For because colour is not seen by the blind man, it does not become non-existent (*na hi abhāvapraptam bhavati*), since it is seen by the man who has eyes.” This *abhāva* does not correspond to Patañjali's formulation of *nidrā*.

It is then necessary to pay attention also to two impulses which overlap each other as is the case of an actor who takes the rôle of Rāma (I 24), or of two impulses from various sources: IV 16: “The taste and the sensoric

<sup>33</sup> The examples are mentioned in the translation by J. H. Woods.

power and the digestion and so on is not the same whether one makes use of an actual sweetmeat or of a sweetmeat of hope", or for instance "The Brahman-boy cannot cook with fire that he imagines to be present (I 32), but he can cook with fire which is present (II 28)."

Very interesting are examples illustrating negative, unconditioned impulses which according to Indian philosophy come from past lives. These sometimes do not appear in life as was mentioned for instance by Vācaspati to IV, 9: "The *samskāras* become not manifested in the case of a man, who immediately after his death passes into an existence as a cat. With him the particular *samskāras* which correspond to its fruition would become manifest (as a cat), one would not expect a manifestation of human *samskāras*."

In the case of a child who has not yet had an experience the impulses from past lives become apparent, i. e. unconditioned impulses, for instance to II 9: "For even a child born trembles at the sight of a murderous thing, — because the child has an experience of a previous birth." In the same way in the case of *samskāra* and *karma* weakness manifests itself, because there is an opportunity for their fruition at some other time (II 13). Patañjali in II 22 thus differentiates advancing and not advancing *karma*. To II 15 Vācaspati says: "From laughter and other acts we must infer joy or grief in previous life to be the causes of the acts of the child."

The effectiveness of a negative impulse is demonstrated by further examples given by Vācaspati. Thus to II 15 a positive impulse is connected with a negative impulse of poison: "The ancient sages do not heed to anything at the first impression. There is of course, merely at the first impression, an experience which any one can feel of pleasure which follows even after eating food mixed with sweet poison; but after a lapse of time there is no pleasure."

Another example of the effectiveness and urgency of a negative impulse is mentioned in II 28: "Mrkandu, whose central-organ had become concentrated, heard the fifth note ripening upon the lute, and lifted up his eyes and behold the heavenly-nymph Umlocā, in the perfection of beauty and loveliness, so that he lapsed from concentration, and his central organ became attached to her." A negative impulse can thus cancel even the state of *samādhi*.

The effectiveness of a prepared negative impulse is mentioned by Vācaspati in I 24: "Chaitra contemplates: 'Tomorrow I must get up just at day-break.' And then after having slept gets up at the very time because of the subliminal-impression resulting from his contemplation."

Vācaspati mentions in III 13, how a negative impulse is concealed in a thing as for instance curds in milk. Curds, although existent in the milk, do not exert its own functional activity.

Kālidāsa in Šakuntalā gave a proof about the effectiveness of a negative impulse. Šakuntalā in deep meditation forgot to honour a beggar, did not hear his damnation, but this negative impulse nevertheless came true.

Similar negative impulses can thus introduce *nidrā* as they signalize a certain knowledge of things, which appears only as fluctuation either pleasant or unpleasant or indifferent. The fleeing of animals before an approaching destruction (monsoon), a daily experience with people and animals which give an indefinite impression of sympathy or antipathy, courage or fear or apprehension etc. unclear conditions which often cause even somatic pain—all these can serve as a basis for the determination of *nidrā* as a special signalizing form about exterior things.

A specially suitable example can be found in IV 15: "For in the case of a single woman, who is an impulse to several persons, enamoured or ill-disposed or infatuated or detached, we see a reciprocal connexion so that one thinks: 'She who is seen by you is seen by me also.' Consequently while the physical thing remains the same, the persons have different thoughts. In the lover, a thought of pleasure with reference to the woman loved; in rival mistresses, a thought of pain; but in Chaitra who has not obtained her, a thought of infatuation, a depression."

It can be seen from this example that an impulse from a certain object gives rise to the same content of commotion as in *nidrā*, i. e. *sukha*, *duḥkha*, *moha* (*styāna*). In this case Vācaspati raises a serious objection: "How can one and the same object be the cause of mental acts differing according to the difference in pleasure and other experiences? For from a cause which is not different in its distinguishing characteristics there should be no difference in effect."

This objection is refuted by Vācaspati from the point of view of Sāmkhya that the same external thing which is a mutation of the three aspects (*gunas*) has three forms (i. e. *sattva*, *rajas*, *tamas*). "The objector says: 'Even if it be so, then all without distinction would have a mental act of pleasure and of pain and infatuation.' In reply to this (Vyāsa) says, that the mind-stuffs of men are dependent upon right living, or wrong living or *avidyā* or complete insight (*prajñā*). The thing becomes the cause of presented-ideas or impulses (*pratyaya*), as they rise corresponding (in quality) to the (determining) condition."<sup>34</sup>

From this example it is possible to deduce quite clearly a correct way to the explanation of *nidrā*. In the first place we must be aware that the same thing can arouse various emotions, not only in various people but also in the same man. This depends on the conditions or on the mood of the person. The stimulation of a certain commotion, however, depends on various dispositions, aspects, and basic factors, contained in the thing which emit impulses causing commotions corresponding to these aspects.

Patañjali imagines that every object has five forms, but only one form corresponds to the three *gunas*. It is *anvaya*—inherence, connection, asso-

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<sup>34</sup> Correspondingly also Bhoja to IV 15. See further.

ciation. To this, in the case of an object, corresponds *śīla*<sup>35</sup>—quality, disposition, inclination, which according to Patañjali has three forms: *prakāśa*—light, brightness, manifestation; *kriyā*—movement, activity; *sthiti*—inertia, the state of being fixed or stationary. Every thing is thus either in full expression, or in activity, or it is inert, rigid.<sup>36</sup>

Commentators to II 18 say that *sattva* has a disposition to brightness, *rajas* to activity, *tamas* to inertia. In the case of Patañjali we must, however, understand *anvaya* — inherence as a connection of all objects, of the whole reality. It is a qualitative form of reality which negates an individual object and brings it in connection with the whole reality.

The attempt of the commentators to explain *nidrā* from the point of view of Sāṃkhya conceals the threads to the original interpretation of the basic text. The scheme of reality according to Patañjali looks as follows:

<i>drśya</i> object	<i>bhūta</i> things	<i>indriya</i> senses	<i>vṛtti</i> commotion
1. <i>viśeṣa</i>	<i>sthūla</i>	<i>grahaṇa</i>	<i>pramāṇa</i>
2. <i>aviśeṣa</i>	<i>svarūpa</i>	<i>svarūpa</i>	<i>viparyaya</i>
3. <i>linga-</i> <i>aliṅga</i>	<i>sūkṣma</i>	<i>asmitā</i>	<i>vikalpa</i>
4. <i>śīla</i>	<i>anvaya</i>	<i>anvaya</i>	<i>nidrā</i>
5. <i>artha</i>	<i>arthavattva</i>	<i>arthavattva</i>	<i>smṛti</i>

properties	knowledge	relation to the object
particular generic	direct mixed	<i>vastu</i> <i>atadrūpa</i>
abstract qualitative	verbal negative	<i>vastuśūnya</i> ( <i>vastu</i> ) <i>abhāva</i>
subjective	telic	( <i>vastu</i> ) <i>anubhūta</i>

*Anvaya* gives three grades of quality along which the whole reality develops from its inertia to its full expression. These dispositions are inherent in every object, in the whole reality, and the man becomes aware of these

<sup>35</sup> II 18: *śīla* from *śīlati* — to reflect profoundly and abstractedly, connected with *śī* — sleep, repose.

<sup>36</sup> Patañjali calls the second section of yoga *kriyāyoga*, the yoga of activity, the operative yoga. Its aim is to achieve brightness, full expression either in the acquiring of knowledge of the things as they are or in the achieving of perfections. Everything in us is veiled by a barrier of unacquired knowledge, it is therefore necessary to achieve a full brightness of perfectness by activity, by the development of abilities.

inherent qualities only in the form of emotions, a *vṛtti* which is supported by an impulse negating the object.

*Abhāva* means a new reality in which the qualitative grades are inherent. This reality signalizes only the *kleśa*-fund.

Summing up the results we can state the following:

1. The commentators did not understand the formulation of *nidrā* because their conclusions are elaborated from a different aspect (Sāṃkhya). They consider the individual form of a *vṛtti* to be an independent *vṛtti* and *nidrā* to be a sleep. By so doing they miss the prerequisite for a correct interpretation of *nidrā* and become exposed to justified objections.

2. They have nevertheless maintained the original interpretation under the layer of later philosophy.

3. It can be derived from this, that already the first commentator Vyāsa was farther away from the basic text than one would presume or that Patañjali was the mentioned grammarian from the II century B. C.

4. *Nidrā* is a form of commotion in which we are aware only of a pure *vṛtti*, an emotional *vṛtti*, which is stimulated by an impulse negating or inhibiting the object. This objective negation corresponds to the qualitative sphere of reality.

5. The commentators, however, in their interpretation of sleep gave an explanation which is in accord even with modern ideas supported by experiments. In the same way also Patañjali gave serious proofs in his formulation which we can explain to-day and verify them experimentally by physiological results.

I consider it therefore suitable to mention these results and to compare them with Patañjali's formulation. These are in the first place the experiments made by I. P. Pavlov with regard to sleep. I shall give the total results which I shall be able to use advantageously for the explanation of further impulses — *pratyayas*.

This research confirms in the first place the interpretation of the commentators on sleep, namely that the sleep is a positive experience, that it is based on a temporary negation of commotion, and that its essence is *tamas* — inhibition. In addition we shall hear also about the contents of Patañjali's *abhāvapratyaya*.<sup>37</sup>

According to Pavlov the nervous activity is composed of two processes: stimulatory and inhibitory of varying intensity and length. "It is the balance between these processes", wrote Pavlov,<sup>38</sup> "and its fluctuations within normal limits as well as beyond them which determine all our behaviour both in

<sup>37</sup> I have used the following books: I. P. Pavlov: Izbrannye proizvedenija, red. Ch. S. Kochtojanc, Moskva 1949. E. A. Asračan: I. P. Pavlov, his life and work, Moscow 1953. E. A. Asračan: Učenije akad. I. P. Pavlova o vyšszej nervnoj dejateľnosti, Moskva 1949. K. M. Bykov: RoP golovnogo mozga v dejateľnosti vnutrennich organov, Moskva 1949. I. M. Sečenov: Refleksy golovnogo mozga, 1947. V. Čedík: Psychiatry and Psychology, Prague 1953. J. Linhart: The Teaching of I. P. Pavlov and Psychology, Prague 1951. I. P. Pavlov: Selected Works, parts I, II, III, in four volumes, Prague 1956 (Czech edition).

<sup>38</sup> Twenty Years of Objective Study, p. 11.

health and disease." Both the stimulatory and inhibitory processes<sup>39</sup> are dynamic processes, either radiating or restricted within certain limits, concentrating. The basic feature of these two processes is that on the one hand they have, at their origin, the tendency to spread and to occupy an excessively large area, and on the other hand they are again restricted to certain areas and kept there. When the inhibition has spread we come across a situation which is manifested by drowsiness and sleep.

The sleep does not come suddenly but spreads out gradually. The rôle of inhibition is in the defence of the weakened and partially exhausted nerve cells, is as a safeguard. Inhibition provides them with that which they need most of all rest, complete repose. But this is rest of a special kind. It is not complete inactivity nor a suspension of the vital processes (nutrition, respiration, etc.). Inhibition apparently does not even slow down these processes to any extent. We may suppose that, essentially, inhibition blocks the cells, interrupts their connection with the other centres and organs and directs the function of the cells primarily as if along a different path, to the elimination of their fatigue and other undesirable changes caused by lengthy and intensive works. It thus follows from Pavlov's theory that normal, periodic sleep is nothing else but just such a guarding or protecting inhibition of the predominant mass of the cerebral nerve cells.

Pavlov wrote:<sup>40</sup> "Sleep is an inhibition which has spread over a great region of the cerebrum, over the entire hemispheres and even lower down to the midbrain". So the more or less equal fatigue of most of the brain cells creates a favourable condition for an inhibition arising at any one of the cerebral centres to quickly spread over the entire brain. "Certain cortical cells reacting to the given external agent, which for long has been in action and exhausting themselves, pass over into a state of inhibition, and, in the absence of any opposition by the other active centres of the cortex, the inhibitory process spreads out and produces sleep".<sup>41</sup>

In the light of Pavlov's theory there have found also solution the sleep-producing factors, the causes of sleep as exhaustion, the poisonous products of the vital activity of cells, the excitation of specific nerve centres, the cessation of impulses, and also a silence, darkness, monotonous sound, quiet lying in bed etc. Some of these factors limit the external influences on the brain, whereas others act as conditioned stimuli causing sleep and developed by the condition of the individual's life.

There can be particular conditions of cerebral function when a superficial or sufficiently deep inhibition does not embrace the whole cortex, but only one or a number of its parts, causing sleep only in these parts. This peculiar partial sleep is just the physiological basis of hypnosis.

According to Pavlov inhibition and sleep is one and the same thing.

<sup>39</sup> Problema sna, 1935. Ed. 1940.

<sup>40</sup> Twenty Years, p. 385.

<sup>41</sup> Lectures on the Work of the Cerebral Hemispheres, p. 226.

Sleep is the opposite of wakefulness, which is marked by full and clear consciousness, whereas in a deep sleep the cerebral cells are immune towards the majority of impulses. Wakefulness, however, does not usually convert into sleep suddenly, but only gradually by the intensification of the inhibition. These grades, Pavlov's transitional phases of sleep, are practically four:

1. The levelling phase, which alters the law on the force of the impulse and the force of the effect in the sense that both strong and weak impulses yield the same effect. It is the state of drowsiness in which the man becomes indifferent to his surroundings, when everything becomes blended and confused.
2. The paradoxical phase, when weak impulses yield even stronger effect than strong impulses. It is the state of slumber and half-sleep.
3. The ultraparadoxical phase, when positive waking impulses remain without effect but the existing negative impulses i. e. inhibitory impulses are effective. It is the state of light sleep. The inhibition penetrated into the hemispheres, the sleep commenced but, nevertheless, there are individual wakeful points which Pavlov calls sentinels or the points on duty. These points appear for example in a miller. When the mill stops the miller immediately wakes up; or, for example, noisy sounds will not wake the mother but the slightest uneasiness of the child will. If the conditions for the stimulation of a certain point occur it will not prevent the point to exercise his activity and to stimulate the process.
4. Finally a total inhibition, a deep sleep arrives.

A dream is an expression of the paradoxical phase when the images exert a stronger influence on the mental activity than the reality itself. The man dreams that he is flying although his senses during a light sleep signalize that he is lying quietly in bed.

All the mentioned features of a sleep can occur also during a wakeful state, i. e. it is not necessary for their occurrence that the eyes are closed, that the body is in a quiet position, because the inhibition can concern only certain parts of the cerebral cortex whereas other parts are absolutely wakeful. There are cases of sleep in walking and in riding on horseback. The inhibition is restricted to cerebral hemispheres and has not penetrated to lower centres. Further we know a sleep with partial wakefulness owing to certain impulses though weakened.<sup>42</sup>

What is the course of the signalizing system during initial inhibition and its development? Pavlov says, that our highest sphere, the sphere of verbal activity (i. e. the second signalizing system of reality) at the beginning of a sleep or weariness is inhibited first. The weariness evokes inhibition and this sphere passes to an inactive state. But further behind this verbal sphere of cerebral hemispheres there is the sphere which is common to us with animals, that which Pavlov calls the first signalizing

<sup>42</sup> I. P. Pavlov: The Real Physiology of the Brain, „Příroda“ Magazine 1917, № 1.

system, i. e. the perception of impressions originating from all stimulations by which we are affected.

When we are awake, the verbal sphere inhibits the first signalizing system. When the sleep begins, then the sphere lying under it and having an immediate relation to impressions is felt much more strongly and appears in the form of individual dreams. When this pressure ceases to exert influence there is a certain relaxation so that the sleep spreads as inhibition to spheres large or small.

Immediately at this opportunity I wish to draw the attention that Patañjali classifies *nidrā* after *vikalpa* that is after the second signalizing system of Pavlov and that he does not identify it with a dream. The dream is classified by the commentators to *smṛti* — memory. In the sense of Pavlov's interpretation *abhāvapratyaya* would mean the image of unreality, the images which occur in a dream. This interpretation, however, could not relate to Patañjali's formulation. In *nidrā* Patañjali mentions the impulse of negation which means that in *nidrā* there is a special impulse and not an image of unreality.

In this direction the correct road is shown by further experiments of the physiologists. I. K. Sechenov, wrote in his book "Cerebral reflexes" about obscure feelings which originate in the internal organs: "In an excellent satire by Voltaire an inhabitant of Saturn asks a traveller from the Sirius: "How many senses have you?" "Seventy-two, but we regret every now and then that we have so few." It has been found out that besides the special senses there are many other "obscure senses". Also these senses exert an influence upon us and their impulses arrive in the cerebral cortex. Having been exposed by Pavlov's teaching they cease to be mysterious and it is possible to consider them as impulses originating in sense organs, but these are special organs. It is a matter of a new kind of reflexes the so called interoreceptive conditional reflexes and a number of histologists (Lavrentjev, Ivanov, Piněs, Baron and others) ascertained that in all the internal organs there are small special organs which according to their opinion represent sensitive organisms.

Experiments have shown that the cerebral cortex is entered not only by signals from the outside world, but also by signals from the "internal economies" of the organism which are signalized by means of the interoreceptors. We are aware of impulses which come from the outer world but we are usually not aware of impulses that come from the "internal world", from the interoreceptors; this is beyond the threshold of consciousness, a subconscious process. The experiments have shown that if interoreceptive conditional reflexes were trained in a dog then in the first period, when this process is developing, the dog seems as if he were looking for this impulse from outside.

What affects the internal organs? The experiments have shown that the interoreceptors do not merely emit reflexes for breathing and blood circulation, i. e. that the signals do not merely affect the vegetative aspect

of life (respiration, digestion, blood circulation) but that they interfere also with the control of the skeletal muscles, i. e. with the animal aspect of life.

These experiments verify the activity of the cerebral cortex from the aspect of the internal life of the animal and also of its subconscious sphere. The impulses streaming from the depths of the organism unite with the cerebral cortex and influence the origin and the course of the conscious acts of the will. These impulses nevertheless do not achieve in normal state the threshold values of consciousness and are "preserved" in the cerebral cortex for some time in the subliminal intensity, in a latent form, and remain concealed on analysing the consciousness.<sup>43</sup>

If we want to make use of this physiological research we must avoid in the first place to impute into the interpretation of *nidrā* the results of these experiments. On the other hand we must take these experiments into consideration because they yield a safe explanation verified by experiments of a sleep, slumber, and dream, so that we can reliably ascertain what Patañjali wanted to say by his formulation of *nidrā*.

In the first place we shall exclude the explanation of a dream as it is not the object of sūtra about *nidrā* as was correctly pointed out by P. Deussen, and also the commentators classify the dream — *svapna* to another form of *vr̥ttis*, i. e. to *smṛti* and not to *nidrā*.

It can be seen from the experiments that *nidrā* need not mean a sleep and that in the best case it resembles a slumber or one of the phases preceding sleep. In contrast to this the commentators clearly consider *nidrā* as sleep, which is in contrast to wakefulness and dream, i. e. they classify *nidrā* into the ultraparadoxical phase of sleep because the dream is classified into the paradoxical phase.

On the other hand it is significant that all the features of sleep can appear also in wakeful state because the inhibition can concern only certain areas and other areas are wakeful so that just these areas could be the object of *nidrā*.

Pavlov attributes to this sphere negative impulses, inhibitory impulses, as they appear for instance in miller or mother, or as can be supplemented from interoreceptors concerning the vegetative and animal aspects of life. These impulses of interoreceptors are suggested by the characteristics of the commentators in their description of the impressions after waking. These impulses are under the threshold of consciousness, in subliminal intensity, in a latent form and are concealed from consciousness. All this characteristics exhaust the meaning of the expression *abhaवapratyaya* as a negative impulse in a latent form, of subliminal intensity.

The evidence that such impulses exist is also given by the commentators. Vācaspati even mentions how it is possible to bring about such a negative

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<sup>43</sup> K. M. Bykov: Rol' kory golovnogo mozga, 1949.

impulse if before going to sleep we consciously give an order for waking at a certain time.

According to Patañjali *nidrā* is a reaction on one form of every thing, i. e. *anvaya* or another signalizing form.

Is it possible to ascertain that a man reacts to a thing not only by perception, verbally, but also by emotion which is either pleasant, unpleasant, or indifferent?

I. M. Sechenov<sup>44</sup> says on this subject: "Every one knows that one and the same external impulse which affects equally sensitive nerves once causes a pleasant feeling to a man and other times not. If for instance I am hungry, the scent of a dish is agreeable to me, if I am full, it is indifferent, and if I am overfed it is almost repulsive. Another example: A man lives in a room which is badly illuminated; if he enters a room which is better lighted he feels pleasant. He returns home and the reflex has taken on a quite different form. It will, however, suffice, that this man should sit for a while in a cellar, and then he will enter his room with a happy face. Similarly as regards sensations which evoke either positive or negative experience in all the sensory spheres."

Sechenov explains this phenomenon in the way that the nature of the perception changes in its essence with a change of the physiological state of the nervous centre.

According to Indian opinion the reaction to an exterior object depends on right living or wrong living or undifferentiating *kleśa* or complete insight. The commentators interpret the different reactions from the point of view of the Sāṃkhya (to IV 15). Bhoja was particularly aware also of the philosophical importance of the fact that the same object does not evoke the same reactions in various persons. He says: "The cause (*kāraṇa*) being different, if the effect (*kārya*) is not different, the universe (*jagat*) created by many causes may be of one and the same form (*ekarūpa*). Or in consequence of its not following the difference of causes it would be independent and causeless."

Further he explains wherein lie the various reactions to the same source and asks: "And if it is so (it may be asked) why does the same object which consists of three qualities (*triguna*) not produce cognitions full of pleasure, pain, and indifference (*sukha duḥkha mohamayāni jñānāni*) in one percipient?" He then explains the difference in reactions as follows: "For as the objects consist of three qualities the mind (*citta*) likewise consists of three qualities (*triguna*), and the merits, demerits, etc. are its (sc. *citta*) accessories (*dharma-adharma-ādayaḥ sahakariṇaḥ*) in the production of an object (in different shapes), from the manifestation of these (merits etc.) manifestation of mind in such and such form. Thus when the woman is in the presence of an amorous person, his mind, auxilliary to which is merit (*dharma-sahakṛtam cittam*), undergoing modification (*parināma*) through

<sup>44</sup> I. M. Sechenov: Refleksy golovnogo mozga, 1947, § 6.

the predominance of purity (*sattva*), becomes full of pleasure (*sukhamayam*). The mental state of the rival alone likewise through the predominance of passion (*rajas*) subsidiary to which are wealth and merit, becomes full of pain (*duhkham*). The mental state of the irate rival through the predominance of darkness (*tamas*), accessory to which is violent demerit, becomes full of dullness (*mohamayam*). Therefore the sensible object is different from the sensation (*vijñāna-artha*), therefore there is thus no identity between the sensation and its object. There is no relation of cause and effects, inasmuch as there is a contradiction."

Patañjali expresses very briefly that while the thing remains the same, the mind is (reacts) different, therefore the two are upon distinct levels (IV 15).

This formulation by Patañjali admits two interpretations namely that either the mind of various people reacts differently to the same object or that the same mind reacts differently. From the context of further sūtras follows that Patañjali refers by his formulation to the second interpretation. The experiments described by Sechenov also confirm that the same man reacts differently to the same thing.

I wish to draw the attention to the experiments with interoreceptors and with internal sensitive organs especially the experiment with the dog who looks for the impulse in the outside. Also I. P. Pavlov<sup>45</sup> maintains, that during an inhibition of a wakeful state to drowsiness, and with the approach of a light sleep (which correspond to the state of waking up from the sleep or the state of falling asleep) a chaotic nature is reached which does not respect the reality either totally or in part and is subordinated mainly to emotional influences of the subcortex. This is in accordance with Patañjali's formulation that in *nidrā* we are only aware of the commotion expressed in the form of pleasure, pain, infatuation. This emotional state which disregards the reality is caused by the negative impulse.

According to I. P. Pavlov<sup>46</sup> the sleep develops in two ways: by the spreading of the inhibition from the cortex, and by restricting the impulses which arrive to the highest section of the brain both from the outer and the inner organisms.

Patañjali's formulation admits the interpretation that in outer objects and in sense organs there are signals, one form of which is the *anvaya* — inherence which signalizes *nidrā*. *Nidrā* is thus a signalizing form sui generis with a negative impulse.

Also Vācaspati's interpretation that in *nidrā* there is transient negation of the fluctuation of the waking and of dreams can be seen in a different light. Pavlov's experiments showed that the second signalizing, verbal form, inhibits the first system and that in sleep also images which form the basis of dreams are inhibited. From this follows that *abhāva* can not refer to

<sup>45</sup> I. P. Pavlov: Experiment on Physiological Understanding of the Symptomatology of Hysteria, 1932.

<sup>46</sup> I. P. Pavlov: Conditional Reflex, 1934, Large Medical Encyclopedia.

negation of the preceding form of *vṛttis* because this negation or inhibition is manifested in each signalizing form by the fact that a new form inhibits the preceding one. The impulse of negation comes from the outside, i. e. it is a negation of the object, i. e. negative impulses, concealed, latent, obscure, but inherent in the object, are absorbed from the object.

It is thus possible to translate *sūtra I 10*:

The inhibitory form of fluctuation or commotion is the awareness only of fluctuation as pleasure, pain, infatuation, supported by the negative impulse (i. e. impulse objectively negative and inherent in things). Or in other words *nidrā* is fluctuation supported by the negative impulse.

*Pratyaya* thus has the nature of an external cause with an impelling force. Impulse is thus a very suitably selected expression expressing the basic meaning of that which goes towards or in direction to someone or something.

The inhibition feature in *nidrā* can be derived also from the classification of *nidrā* and *svapna* among the means of reaching the stable state of undisturbed calm of *citta* (*cittaprasādana* I 33—39).<sup>47</sup> The opposite of this is distraction of the *citta* (*cittavikṣepa*) with accompaniments. Among these distractions belong e. g. sickness, listlessness as lack of effort due to heaviness of body or of mind, unsteadiness of the body, which makes it tremble, unregulating breathing etc. From the liberal enumeration of methods leading to the achievement of pacification it is necessary to consider *nidrā* and *svapna* in the sense of the formulation in I 10. The essence of *nidrā* and *svapna* is a more spacious inhibition of cerebral hemispheres or, in Patañjali's formulation, the consciousness in *nidrā* is only a fluctuation in which the form of *pramāṇa*, *viparyaya*, *vikalpa*, is inhibited, and in *svapna* also the form of *nidrā*.

It is especially interesting, however, that Patañjali brings *nidrā* and *svapna* in connection with the elimination of distraction of *citta*. We are right to suppose that the effects of *nidrā* and *svapna* have been ascertained by long experience, i. e. the effects of inhibition on the improvement of the state of health. To-day the therapy by inhibition is one of the very effective therapeutic means. It has been ascertained, that inhibition leads to the improvement of the state of people nervously ill. The inhibition restricts or excludes the activity of the ill brain.

Patañjali pointed out this inhibition as a therapeutic means. This is a proof of very remarkable experiences and a close connection of Yoga with the medicinman.

<sup>47</sup> Maitri Up. VI, 25: „nidrevāntarhitendriyah śuddhitamayā dhiyā svapna iva yaḥ paśyatindriya bile vivaśah... vigata nidram... He who has his senses indrawn as in sleep, who has his thoughts perfectly pure as in dream... who, while in the cavern of the sense, is not under their control, perceives him... the sleepless.” This confirms the objectively negative sphere in *nidrā*.

## 2. *Asamprajñātanirodha with virāma-, bhava- and upāyapratyaya.*

The commotions of the mind signalize the fivefold form of the object of the outer and inner reality. The impulses which the mind elaborates into five forms of *vṛttis* enter the consciousness from the sources of reality. These forms express the sphere of reality both direct and indirect, the verbal sphere, the qualitative and the purely subjective sphere. The subject is aware of these forms of commotion, recognizes them and surveys their impulses.

The *vṛttis* do not only reflect the reality, but this reality is deformed by the imperfection of the senses, by the *kleśas*, which do not allow correct differentiation between the truth and untruth. In addition the *kleśa* forms the connection of the subject with the object. The subject is identified with the commotions, is under their influence, or in other words the condition of the subject conforms with the *vṛttis* (*cittavṛttisārūpya* I 4). This state is marked by thirst — *trṣṇā* for seen or otherwise acquired things and notions. Perceptions, conceptions, ideas, and emotions evoked in this way completely control the subject. Patañjali thus says I 12: “*abhyāsavairāgyābhyaṁ tannirodhah*.<sup>48</sup> — The control of them is achieved by means of practice and uncolouredness (passionlessness).” Practice is an exertion to achieve permanence in control (*tatra sthitau yatno व्यासः bhyāsaḥ* I 13). The consciousness then flows without *vṛttis* and in undisturbed calm (*cittasyāvṛttikasya prasāntavāhitā sthitih*, Vyāsa to I 13). The uncolouredness from the object is the consciousness of being the master on the part of one who has rid himself of thirst for objects either seen or otherwise acquired (*drṣṭānuśravikavisayavivitṛṣṇasya vaśikārasamjñā vairāgyam* I 15). The higher stage relates to thirstlessness for qualities (*gunas*).

Patañjali thus formulates the Yoga of the 1<sup>st</sup> book as control of the *vṛttis* (*cittavṛttinirodhah* I 2), by which the subject reaches the stage of its own nature (*svarūpeऽvasthānam* I 3). It is the matter of a shift of objective consciousness to selfconsciousness, selfenfoldment — *saṁādhi*.

The control of the commotions proceeds in two stages. The first stage is *saṁprajñātanirodha* — control with objective consciousness, the second stage is defined by the commentators as *asamprajñāta*, i. e. without objective consciousness.

Patañjali formulates *asamprajñātanirodha* in I 18: “*virāmapratyayābhyaśapūrvah saṁskāraśeṣo न्याह* — the other (control of *vṛttis*) consists only of *saṁskāras* — impressions and its prerequisite is the practice of inhibitory impulse, I 19: *bhavapratyayo videhaprakṛtilayānām* — with those

<sup>48</sup> *Nirodha* from *ni-rudh* — to oppose, obstruct, block, arrest, confine, blockade means opposition, confinement, restriction, suppression. *Cittavṛttinirodhah* according to Radhakrishnan (History of Ind. Phil. II, p. 348): The flow of mental modification is arrested. According to Dasgupta (The Cultural Heritage I, p. 335) it is stoppage of the flow of presentations, but also as the eradication of those potencies or latent tendencies that generate new streams of thoughts and new lines of actions. The commentators consider *nirodha* as synonymous with *saṁādhi*, *kaivalya*. The confusion of these disparate conceptions supports the supposition about the variability of the basic text, but is in contradiction with the basic text.

who have not the feeling of concreteness, corporality and lie in *prakṛti*, this impulse is innate I 20: *śraddhāvīryasmṛtisamādhiprajñāpūrvaka itaresām* — with the others energy, memory, selfenfoldment, knowledge (insight) is presupposed.” These means are called by Vyāsa *upāyapratyayas* — the impulses of means or in other words the acquired impulses.

The interpretation by the commentators deviates considerably from the basic text. In the first place they incorrectly identify *nirodha*—control with *samādhi*—selfenfoldment and *kaivalya*—independence. P. Deussen<sup>49</sup> influenced by the commentators, expressed the opinion that two related conceptions here are fused together, namely *samprajñāta samādhi* with *sabīja samādhi*, and *asamprajñāta samādhi* with *nirbīja samādhi*. He then stresses a surprising circumstance, that Patañjali does not deal, after explaining *asamprajñāta samādhi* in I 18, about it, but without saying so, describes *samprajñāta-sabīja samādhi* only. He then supposes that the text I 17-51 about *samādhi* comes probably from older times than the Yogāṅga text (II 28 till IV 6).

This mistake was made owing to an incorrect explanation of the commentators. Patañjali in I 1 speaks about *nirodha* and first in I 46 says: “*tā eva sabījah samādhiḥ*—this means exactly selfenfoldment with a seed.” *Tā* refers to I 41-45, where *samāpattiḥ*—balanced-state is formulated.

*Samprajñātah* and *anyah* in I 18, 19 refer to *nirodhah* in I 12 and not to *samādhiḥ* in I 46, which was not mentioned before. Besides from *sūtra* I 51 the relation *nirodha* as a prerequisite to *samādhi* can be clearly assessed. Patañjali says there: “*tasyāpi nirodhe sarvanirodhānnirbījah samādhiḥ*—When this (impression) also is controlled, because all is controlled, the self-enfoldment is without a seed.”

Deussen erroneously thinks that after the formulation *asamprajñāta nirodha* there is no further mention about it. Patañjali on the other hand mentions the whole procedure from I 20-51, how it is possible to achieve *asamprajñāta nirodha* also in those cases, in which there is no inhibitory impulse innate, and who can achieve this unobjective control by the way of acquiring the inhibitory impulse by practice. They are just the means mentioned in I 20: belief, energy, memory, selfenfoldment (with the seed), knowledge.

*Śraddhā*—belief is referred to in methods I 21-32. Patañjali first differentiates between the stages of the intensity of the belief with the method —*īśvarapraṇidhāna*—of orientation to *Īśvara* with the result of *pratyakṣetana*—the reverse of thought, i. e. extrovert thinking changes introvert thinking. In the case of ordinary thinking the *citta*—consciousness is directed towards his environments and is modified objectively,<sup>50</sup> it is an extrovert thinking. The opposite, however, is achieved here, the introversion. In addition the obstacles and distractions of the mind-stuff are negated (*antarāyābhāvah*).

<sup>49</sup> Allg. Gesch. d. Phil. I 3, p. 513, 572.

<sup>50</sup> Vyāsa to I 29.

*Vīrya*—energy is referred to in the methods of achieving *cittaprasādāna* undisturbed calm of the mind-stuff (I 33-44) with the result of the mastery—*vaśikāra* ranging from the smallest atom to the greatest magnitude.

*Smṛti*—the memory form of the stimulation is referred to in the methods *samāpatti* I 41-47, by which the memory fund is purified, i. e. relaxed, with the result, that the internal calm, the pacification of one's own ego (*adhyātmaprasādaḥ*), is reached.

This leads to *sabījasamādhi*—selfenfoldment with the seed (of impressions and *kleśas*) and *rtaṁbharāprajñā*—the truth-bearing insight about the world order (I 48-50). This insight differs from acquired knowledge and from the insight streaming from one's own thinking (*śruta—anumāna—prajñā*) in that the subject is its substrate.<sup>51</sup> This means that the *sārūpya* condition in which the subject conforms with the *vṛttis* is transformed into the *svarūpa* state, i. e. the objective consciousness is shifted to the selfenfoldment.

It is evident that it is not the case here of a fusion of two related conceptions but it is a fluent interpretation in which one *sūtra* is linked to the other. The error was committed due to the fact that some indologists relied more on the commentators than on the basic text, which, however, seems ununderstandable without the comments.

The unjustification of these opinions can also be seen from the analysis of *virāmapratyaya*—inhibitory impulse. Vyāsa I 18 explains *asamprajñāta* as follows: “*sarvavṛttipratyastamaye samskāraśeṣo nirodhaścittasya samādhir asamprajñātaḥ. Tasya param vairāgyamupāyah. Sālambano hyabhyāsastatsādhanāya na kalpata iti. Virāmapratyayo nirvastuka ālambanī kriyate. Sa cārthaśūnyah. Tadabhyāsapūrvakam hi cittam nirālambanam abhāvaprāptamiva bhavatītyesa nirbijah samādhiraśamprajñātaḥ.* — The concentration which is not conscious of objects is that control of the mind-stuff in which only impressions are left and in which all commotions have come to rest. The higher uncolouredness is a means for effecting this. For practice when directed towards any supporting-object is not capable of serving as an instrument to this. The inhibitory impulse is made by support without object and is void of a sense. Mind-stuff, when engaged in the practice of this (unperceptible object) seems as if it were itself non-existent and without any supporting-object. This is the enfoldment seedless and not conscious of objects.”

In contrast to the basic text Vyāsa identifies *nirodha* and *samādhi* and adds *paravairāgya* where there is no thirst either for objects or for qualities (*guṇas*). Vyāsa thus relates *virāma* to *vairāgya*, which is also specifically mentioned by Vācaspati, namely, that inhibition is the negation of *vṛttis*, so that the consciousness does not exercise any function. The cause to *nirodha* according to him is *paravairāgya*.

According to the commentators the practice in the inhibitory impulse lies

<sup>51</sup> Vācaspati to I 48.

in the effort to repel the thirst for qualities and not only for objects. On the other hand, Patañjali mentions the precise methods directed towards an object, for instance to *iśvara* by the repetition of the mystic syllable and by reflecting upon its meaning (*tajjapastadarthabhāvanam* I 28); or that the mind-stuff has as its support the object freed from passion (*vitarāgavisayam vā cittam* I 37); or that one contemplates upon any such object as is desired (*yathābhimatadhyānādvā* I 39).

For illustration I shall mention the practice from Visuddhi Magga (p. 124 and further): "A coloured circle (*kasiṇa*) is placed on the ground and observed. From the beginning one then thinks of the futility of sensory sensations and of Buddha's virtues. At the same time, one must not think of the colour or any other details of the circle." By concentrating on a certain object other objects are restricted and inhibited. Also by concentrating on *Īśvara* all the commotions are inhibited so that one is not aware that he is looking at something, or hearing something, etc. One of these methods is *nidrā* and *svapna*—dream just because the reality is being inhibited.

*Virāmapratyaya* is thus a special kind of an impulse which results in the cessation of commotions, so that impulses do not create *vrttis*. The inhibitory impulse prevents the creation of commotions with the effect that one is not aware of the objects or *vrttis*.

*Asamprajñātanirodha*—the control of *vrttis* without the awareness of the objects thus consists only of impressions, of which we are not even aware and is the result of practice in the inhibitory impulse. This impulse inhibits other impulses so that they do not develop into commotions. According to Patañjali this inhibitory impulse is either innate—*bhavapratyaya*, or it can be acquired by certain methods and practice. Vyāsa calls this acquired impulse *upāyapratyaya*.

Vyāsa characterizes these who have an innate impulse to enjoy the quasi-state of independence (*kaivalyapadāmivānubhavanti* I 19). Vācaspati says that the similarity with *kaivalya* lies in the fact that in this state there is the absence of commotions (*avṛttikatva, na tu cittavrtti*). It differs from *kaivalya* in that there are impressions with their task unfulfilled. This state, however, leads to a further birth, so that it is necessary to avoid it.

The condemnation of the innate impulse (*bhavapratyaya*) by Vācaspati is based on his interpretation of the expression *bhava* as world. It is called the world (*bhava*) because living beings are born or grow in it (*bhavanti*). *Bhava* thus according to him means *avidyā*. Vijñāna Bhikṣu objects to this interpretation and interprets *bhavapratyaya* as that which has birth—*janma* as its cause. Vācaspati, however, differentiates *bhavapratyaya* as a temporary inhibitory impulse, whereas *upāyapratyaya* with *paravairāgya* lead to liberation. He thus considers *bhavapratyaya* to be pseudo-yoga which is to be rejected.<sup>52</sup>

<sup>52</sup> J. H. Woods a. a. O. p. 44. Bhoja in I 19 identifies *pratyaya* with *kāraṇa* and *bhava* with *samskāra* (world—creation).

The interpretation by the commentators to the effect that *asamprajñātanirodha* is *kaivalya* contradicts completely the basic text. According to Patañjali impressions remain there which have failed to fulfill their task and in this way differ from *kaivalya*. If the inhibitory impulse is innate it need not be further developed. If it is not innate, it is necessary to acquire it by practice. *Bhava* does not mean here world nor undifferentiating *kleśa avidyā* but it means something existing or innate.

Also in the case of *upāyapratyaya*—acquired inhibitory impulse the commentators outrun the course of the following books. They say I 20 that discrimination of insight is acquired (*prajñā viveka*) so that the yogin perceives things as they really are (*yathārtam vastu jānāti*) and differentiates between *sattva* and *puruṣa*, which leads to *kaivalya*.

Patañjali, on the other hand, differentiates between two kinds of insight (*prajñā*), namely a) that which is gained by one's own activity either mental or acquired or heard from others (*śrutānumānaprajñā*), b) that which is truth-bearing (*rtambharāprajñā* I 49). The difference lies in the shift of consciousness as was mentioned before. It is, however, not the case of a discriminative discernment (*vivekakhyāti*) which can be acquired by other methods described in books II and III.

The way how Patañjali imagines the effectiveness of the inhibitory impulse is shown in I 50; “*Tajjah saṃskāronyasamśkārapratibandī*—impressions which developed from this (knowledge of the order) block the others.” It is necessary to add to this that the knowledge of the order of things arrives only after the *vṛttis* were overpowered (*ksīṇa* I 41). The process of knowledge hence does not pass through the *citta*-apparatus, which transforms impulses into commotions, because *citta* is without *vṛttis*, crystal-clear, and reflects the things as they are. Impressions evoked by this knowledge block other impressions so that they can not develop their power to evoke an impulse which would give rise to *vṛtti*.

The inhibitory impulse thus first inhibits the commotions by restricting or narrowing the range of impulses and concentrating on one thing only (*Īśvara*, etc.). This relaxes the texture, the connection of the subject with the *vṛttis* and the subject becomes conscious of its mastery over *vṛttis* (*vasikārasamjñā* I 15). The new process of acquiring knowledge without commotions evokes inhibitory impulses whose task is to block other impressions.

The outcome must be finally the inhibition also of this inhibitory impression as mentioned in I 51: “*tasyāpi nirodhe sarvanirodhānnirbijah samādhih*—If also this (inhibitory impression) is controlled, because all has been controlled, the selfenfoldment is seedless.”

The commentators, however, identify this state with *kaivalya*—independence, so that *puruṣa*—subject is pure and liberated (*śuddhah*, *muktah*). They thus give the basic text another meaning which is quite unjustified. Some indologists<sup>53</sup> suppose that there are at least two types of yoga-methods,

<sup>53</sup> J. W. Hauer: Der Yoga als Heilweg, p. 99. E. Frauwallner: Geschichte der indischen Philosophie I, p. 438.

*yogāṅga*—systematic yoga and *nirodhayoga*—Unterdrückungsyoga. Hauer considers *nirodhayoga* as intellectual nihilism. These errors were committed by disregarding the basic text and by the drawing of conclusions from the interpretations of the commentators. The result was that the laconic and obscure sūtras of Patañjali would be quite incomprehensible without the interpretation of the commentators. To-day, however, we can reconstruct reliably the interpretation of Patañjali's sūtras because we have a support in the experimental results that have been achieved hitherto within the sphere of higher nervous activity.

— Is it possible to prove the existence of an impulse which would interrupt, stop, or inhibit the commotion of *samskāras* and *kleśas* so as to get them under control?

A similar problem was tackled by I. M. Sechenov<sup>54</sup> who says: "The present physiologists have gradually arrived at a firm conviction that nervous influences can exist in the body of an animal with the usual result of the suppression of automatic movements. The every-day life of a man on the other hand shows a great many examples when the will acts in the same manner: By the exertion of our will we can stop all the respiratory movements in all their phases, even after the expiration, when all the respiratory muscles are relaxed, so that the will can suppress a cry or any other movement which is caused by pain, fright, etc. It is interesting that in all these cases which require a considerable amount of moral power from a man, the will effort is expressed on the outside by only insignificant or no secondary movements; a man who remains under all circumstances perfectly calm and motionless is considered to be stronger. This is so owing to the existence of mechanisms which absorb reflex movements, as has been proved by direct experiments with the brain of a frog which show that when these mechanisms are provoked they inhibit painful skin reflexes."

Sechenov then draws the attention to the act of walking which is a highly purposeful act which, however, through habit, or in the case of a somnambulist, or a drunkard etc., can become a completely spontaneous action, when one is not aware of walking at all.

K. M. Bykov<sup>55</sup> says that the interoreceptive impulse of the cortex inhibits the exteroreceptive, conditional reflex. I should like to refer in this connection to further details of the experiments by Pavlov and his school I mentioned before.

I cannot continue without emphasizing, that Pavlov differentiates between innate and acquired reflexes, i. e. unconditioned and conditioned reflexes which correspond in Indian terminology to innate reflexes from past lives and those acquired in this life. Pavlov<sup>56</sup> says: "The first instance of complex,

<sup>54</sup> I. M. Sečenov: Refleksy golovnogo mozga, ed. 1947, § 4 and others.

<sup>55</sup> K. M. Bykov: Kora golovnogo mozga i vnutrennije organy, 1947, p. 209, Czech edition.

<sup>56</sup> I. P. Pavlov: "Experiment on Physiological Understanding of the Symptomatology of Hysteria, p. 326 and 247, and also Psychiatric reports № 6, 1917, p. 141—146.

mutual relations between the organism and the surrounding is in high animals including the man the subcortical areas which lie next to the hemispheres with their most complex unconditioned reflexes (our terminology), instincts, affects, emotions (various current terminology). These reflexes are evoked by relatively numerous unconditioned factors, i. e. outer factors, which are active from the birth. This is the reason for a restricted orientation in the surrounding milieu and at the same time for a moderate assimilation. The innate reflex is permanent, whereas the acquired reflex, the individual reflex, depends on numerous conditions and constantly fluctuates according to various conditions. It enables us a perfect orientation in a certain milieu and a considerably larger degree of assimilation."

Later I shall mention the inhibitory impulse which inhibits another inhibitory impulse, i. e. the inhibition of an inhibition, which refers to *samādhi nirbija*. All this confirms not only the existence of an inhibitory impulse, but it is also the proof that the yoga practice was based on a considerable experience, particularly psychological, and also somatic and physiological, and was probably the object of observation and experience of the old medical school in India.

According to the present results of the *pratyaya* analysis we can reconstruct the original interpretation of the laconic and obscure sūtras by Patañjali, as far as it is related to practice of *virāmapratyaya*, as follows:

*Virāmapratyaya-abhyāsa*, i. e. practice of an interrupting or inhibitory impulse is the main practice to *nirodha*. *Cittavṛtti*—the fluctuation of the *citta* arises from an outer or internal impulse and every *vṛtti* is expressed in five forms, where one form is linked to the other. The most important, because the most usual, and the most developed form is the *vikalpa* form, i. e. verbal, signalizing form (with *vitarka* and *vicāra*) and *smṛti*, i. e. the memory signalizing form. *Cittavṛttis* by means of the *kleśas* absorb the whole consciousness so that the subject makes with them one form (*sārūpya*). This subordination of the subject must be annulled in that the *cittavṛttis* are completely controlled. The result is that the exterior parts do not evoke *vṛttis* with five forms but that they reflect the reality as it is without colouredness of the objective *kleśa* apparatus. To inhibit this apparatus is the task of the method the basis of which is *virāmapratyaya*—interrupting, inhibitory impulse. In some people this impulse is innate, others must develop it by the exertion of the will.

Patañjali then mentions a number of equivalent methods to individual procedures, the aim of which is to achieve selfconsciousness, selfenfoldment, unobjective consciousness. For this reason the subject in *rtaṁbharaḥ prajñā* recognizes the object directly, because *citta* as crystal shines forth as the object alone (to I 43). *Citta* alone is *nirvastuka*—without an object and *arthaśūnya*—void of sense and meaning, as if it were non-existent and without any supporting object. The prerequisite for this is powerlessness of *vṛttis* (*ksiṇa* I 41). For this reason the process of acquiring knowledge does no more proceed in the former way to develop *vṛtti* into five forms whether it

is a matter of one's own recognition or recognition acquired from others. The subject and the object stand here without an intermediary who deformed the external objects so that the subject now recognizes the object as it really is. This process of acquiring knowledge bears the truth. This kind of knowledge inhibits all the forms of impressions. It is, however, necessary that we should not be aware even of this inhibition and thus achieve seedless concentration of spontaneous selfenfoldment.

The results of the analysis are as follows:

In the first text it is not a question of two opinions dating from different periods, as was supposed by the commentators and P. Deussen, but *samprajñāta* and *asamprajñāta nirodha* are functionally placed into the procedure to *nirbija samādhi*. This *samādhi* cannot be identified with *kaivalya*—independence, because there are *samskāras* also in a blocked form. In addition the first book is a continuous unit which is the first part of the whole yoga-procedure. *Pratyaya* in the first part does not mean Vorstellung, but an impulse the existence of which in the form of *virāmapratyaya*—an inhibitory impulse can be now verified by the results of the physiological experiment.

### 3. *Parināma* with *tulyapratyaya*.

The procedure of the inhibitory impulse—*virāmapratyaya* which sets the orientation from *samprajñātanirodha* to *asamprajñātanirodha* is often identified with mutations of the mind-stuff—*parināma*. P. Deussen<sup>57</sup> opines that *parināma* determines the transition from *sabija samādhi*—seeded selfenfoldment to *nirbija samādhi*—seedless selfenfoldment. According to him this procedure is referred to quite differently in the text I 17-51 and differently in the text III 9 and further.

Sigurt Lindquist<sup>58</sup> correctly states that *parināma*—the mutation of consciousness does not mean stages of *samādhi* but mutations which appear at the beginning of *samādhi*.

Patañjali differentiates between three *parināmas*—mutations of consciousness: *nirodhaparināma* III 9—the mutation of the control, *samādhiparināma* III 11—the mutation during the selfenfoldment, and *ekāgraparināma* III 12—mutation during the singleness-of-intent concentration.

Their formulations are: III 9 “*vyutthānanirodhasamskārayorabhībhava-prādurbhāvau nirodhakṣaṇacittānvayo nirodhaparināmāḥ*”—When the impressions of the active wakeful state disappear and the impressions of control become visible the mutation of control is connected with the consciousness in its period of control.” It is a transitional stage from wakefulness to control, the result of which is a calm flow of the mind-stuff (*tasya prasāntavāhitā* III 10). This acquired characteristic is then manifested also during wakefulness as calm of the mind.

<sup>57</sup> Allg. Gesch. d. Philos. I 3, p. 570.

<sup>58</sup> Die Methoden des Yoga, Lund 1932, p. 154.

III 11: "sarvārthataikāgratayoh kṣayodayau cittasya samādhiparināmaḥ — the mutation of the selfenfoldment begins when the telic dispersiveness of interest dwindles and the singleness-of-intent arises."

III 12: "tataḥ punah sāntoditau tulyapratyayau cittasyaikāgratāparināmaḥ — Then again when the quiescent and uprisen impulses (potential and actual) are in equilibrium (i. e. similar) the mind-stuff has a mutation of the singleness-of-intent."

The third *parināma* is the synthesis of the first two, i. e. if the quiescent impulse from the first mutation and those risen up from the second mutation are in equilibrium, i. e. when they are of the same intensity. In these *parināmas* there is a collision of two contrary processes at a time:

*vyutthāna* and *nirodha*, i. e. the process of wakefulness with great activity following its own purpose and procedure in which the commotions of the mind-stuff are controlled; *sarvārthatā* and *ekāgra*, i. e. many-sidedness, dispersiveness of interest, and singleness-of-intent.

The struggle of these processes is expressed by the expressions: *abhibhava* and *prādurbhāva*, i. e. overcoming, dwindling and uprisal, origin; *kṣaya* and *udaya*, i. e. diminuation, removal and rise, becoming visible; *sānta* and *udita*, i. e. pacified, calmed and risen, grown.

Vācaspati suitably calls this struggle *vimarda* — antagonism, battle, war.

Because Patañjali says that this explains the mutation of external aspects, of time-variations and of the intensity stage of produced objects and sense-organs,<sup>59</sup> *nirodha* corresponds to *dharma*, *saṃdhī* to *lakṣaṇa*, *ekāgratā* to *avasthā*. There are thus three mutations: of form (function), time, intensity.

In this struggle of contradictory processes there is a certain battle-order, because the change of the order of the sequence causes a change in the mutations — (*kramānyatvam parināmānyatve hetuh* III 15). The procedure of the mutations leads to a concentration which balances the impulses, so that the consciousness does not differentiate between various stages as everything is present.

S. Linquist<sup>60</sup> compares with these special psychological phenomena, when the whole life often appears at a critical moment in a single image. The same is said also by Patañjali, namely, that by the concentration upon the three mutations there follows the knowledge of the past and of the future (*parināmatrayasanyamādatītānāgatajñānam* III 16). The past and the present are in equilibrium of the consciousness.

If we now compare the states of consciousness as the relation between the commotion and the inhibition is manifested in them, we get a number of impulses characteristic for a certain state of the mind-stuff.

Vyāsa to I 1 differentiates between five stages of the mind-stuff from the view-point of yoga procedure to *saṃdhī*:

1. *kṣipta* — restless (stage), which is according to Vācaspati extensively unstable;

<sup>59</sup> etena bhūtendriyeṣu dharmalakṣaṇāvasthāparināmāvyākhyātāḥ III 13.

<sup>60</sup> a. a. O., p. 154.

2. *mūḍha* — infatuated, which according to the commentators corresponds to *nidrā* — sleep;
3. *vikṣipta* — distracted, dispersed, which is unstable and stable;
4. *ekāgra* — focussed to single point, one-pointed;
5. *nirodha* — controlled, which is two-fold :
  - a) with the awareness of the object — *samprajñāta*,
  - b) without the awareness of the object — *asamprajñāta*.

We would have to complete this enumeration by Vyāsa, because Patañjali classifies *nidrā* in the wakeful state, and further distinguishes between an inhibitory impulse — *virāmapratyaya* and the inhibition of an inhibitory impulse. We would have to pay regard to the balancing of impulses etc.

Bhoja<sup>61</sup> sets the line according to the grade of inhibition and distinguishes between four mutations of the mind-stuff: *vyutthāna*, *samādhi*, *ekāgratā*, *nirodha*, and says: "iha caturvidhaścittasya parināmaḥ: vyutthānam samādhi-prārambha ekāgratā nirodhaśca. Tatra kṣiptamūḍhe cittabhūmī vyutthānam, vikṣiptā bhūmiḥ sattvodrekāt samādhiprārambhah. Ekāgratāniruddhe ca paryantabhūmi. Pratiparināmam ca samskārāḥ. Tatra vyutthānajanitāḥ samskārāḥ samādhiprārambhajaiḥ samskāraiḥ pratyāhanyante. Tājjāś caikā-gratājaiḥ nirodhajanitair ekāgratājāḥ samskārāḥ svarūpam ca hanyante — There is a four-fold mutation of the mind-stuff: wakefulness, commencing enfoldment, singleness-of-intent, and control. The wakefulness is a state which is unstable and infatuated. The beginning of the enfoldment is a dispersed state because sattva is growing. The state of singleness-of-intent and the control state are the final stages. Every mutation has its impressions. The impressions originating in the wakefulness are inhibited by impressions evoked at the beginning of *samādhi*. Impressions originating in this are inhibited by impressions from the singleness-of-intent, and these are inhibited by the impressions from control and these impressions inhibit themselves."

This is a very comprehensive description of the procedure of the inhibitory impulse up to the inhibition of the inhibition. This procedure of the gradual inhibition is evidently based on certain experiences which have to-day been proved and explained scientifically.

I. P. Pavlov<sup>62</sup> emphasizes that experiments revealed a new important aspect of the matter. It has been demonstrated that besides commotion and inhibition there exists very frequently the inhibition of the inhibition. It is simply necessary to state, that all the higher nervous activity is composed of a continuous alteration, or better said compensation of the following three basic activities: commotion, inhibition, and inhibition of the inhibition or "de-inhibition". Otherwise there is a quasi struggle between the two contradictory processes which normally ends with a certain equilibrium between them, a certain balance.

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<sup>61</sup> See: S. Linquist: Die Methoden, p. 145 and others.

<sup>62</sup> I. P. Pavlov: Natural Science and the Brain, and Real Physiology of the Brain in the Selection of I. P. Pavlov's Works.

Pavlov is of the opinion that the existing research material enables to arrange in a certain order all the states of the cortex, experienced under various influences:

- a) On the one end of the line there is the state of commotion, extraordinary intensification of the excitable tone, when the inhibition becomes impossible or very difficult.
- b) It is followed by normal wakeful state, a state of equilibrium between commotion and inhibition.
- c) Then follows a long successive line of states on the transition towards inhibition. Those especially characteristic are:
  1. the compensating state when all the impulses in contrast to the wakeful state exert an influence quite evenly disregarding their intensity;
  2. the paradoxical state when only the weak impulses are effective whereas strong impulses are hardly noticeable;
  3. the ultraparadoxical state when only the compensating inhibitory factors exert a positive influence;
  4. this state is followed by a state of complete inhibition;
  5. last there is the unclear explanation of the state when the stimulation is so low that any sort of inhibition becomes either impossible or difficult just as in the state of commotion.

#### *4. Dhyāna with pratyaya-ekatānatā.*

In order to achieve perfection (*siddhi*) and indirectly the final aim of Yoga it is necessary to master the constraint — *saṃyama*.

*Saṃyama* is a technical expression for the three highest members of the systematic Yoga, i. e. for *dhāraṇā* — fixation, *dhyāna* — restriction or narrowing of impulses, meditation and *saṃādhi* — selfenfoldment, if all the three members have the same object.

P. Deussen<sup>63</sup> inquires in what the three *parināmas* — mutations of the mind-stuff differ from the three members of *saṃyama*. According to him the difference lies in the fact that in *dhāraṇā*, *dhyāna*, and *saṃādhi* it is only a matter of periodically oriented exercises. These exercises, however, lead gradually to three-fold *parināma*, which correspond to them completely. In *parināma* — mutation the body and the senses change simultaneously with the consciousness till finally the consciousness — *citta* abandons the subject thus achieving the final aim of yoga *kaivalya* — independence.

Because Deussen compared *parināma* with the process from *saṃprajñāta* to *asamprajñāta* and from *sabīja samādhi* to *nirbīja samādhi*, it means, that according to him there are really three similar or identical procedures, i. e. *saṃyama*, *parināma*, *asamprajñāta nirodha*. He was lead to this result by his classification of the basic text of Yoga-sūtras into several independent texts composed by various schools of yoga dating from various times, each

<sup>63</sup> a. a. O. I 3, p. 571.

of which according to Deussen and others always mention the whole yoga procedure as quite independent, but in principle they are the same or similar.

I have already pointed out in the case of *asamprajñāta nirodha* and of *parināma* that the presumption about the fusion of disparate conceptions is unjustified and also here in the analysis of *pratyayaikatānatā* — I wish to pay regard to this fact.

Right at the beginning it is necessary to point out that Patañjali differentiates between *parināma* and *samyama*. He says in III 16, that by concentrating upon the three mutations (*parināma* - *traya* - *samyamāt*) it is possible to acquire knowledge of the past and future, as I have mentioned before. *Samyama* and *parināma* are thus quite disparate conceptions. The prerequisite to *parināma* is *nirodha*, so that it is a matter of quite different conceptions which cannot be confused, whereby the presumption of various texts of the same contents lost validity.

*Samyama* plays an important rôle in the acquiring of perfections and sūtras from III 16 to the end of the third book give the results concerning the perfection of knowledge and the control of reality. Under *samyama* also belongs *dhyāna* with *pratyaya*. If we should correctly understand what this impulse means we must mention all the three members of *samyama*.

Their formulation is contained in sūtra III 1: *deśabandhaścittasya dhāraṇā* — fixed attention is the binding of the mind-stuff to a certain place. III 2: *tatra pratyayaikatānatā dhyānam* — restriction or narrowing is a uniform flowing of the impulse there (from that place). III 3: *tadevārthamātranirbhāsam svarūpaśūnyamiva samādhīḥ* — enfolding is this (restriction) in so far (the consciousness) reflects the objects only telically, as if it were emptied of itself.

Vyāsa mentions that *deśa* — the place is for instance the navel, heart, lotus, light within the head, the tip of the nose or of the tongue, or any other place or an external object.

*Dhyāna* — restriction is according to Vācaspati *ekāgratā* — one-pointedness. *Tatra* is interpreted by Vyāsa as meaning in that place or on that place, and *ekatānatā* as the stream (*pravāhāḥ*).

*Pratyaya* cannot mean here an image or presented-idea because if one draws the attention to an exterior object one does not emit a stream of one's ideas on this place, but the impulses come from this place, from the source.

In the case of normal way of fixing one's attention towards an object this object becomes the center of the observation, but at the same time one perceives also paracentral impulses. The task of *dhyāna* is to restrict the field of impulses to a certain source from which the impulses flow in a single stream. After that the observed object is reflected, the consciousness disappears in the observed object and fuses with it.

For illustration I shall again mention the exercise from Visuddhi Magga : "A coloured object in the form of a circle is placed on the ground and observed. From the beginning one thinks of the futility of sensory sensations,

and of the virtues of Buddha, and his teaching, and his community. One must not think of the colour or any other details of the circle." According to this description continuous impulses emerge from the circle but they are not developed into conmotions because this is prevented, or better said, the development of these impulses is inhibited by the thoughts concentrated in other direction. This exercise is practiced so long till the image in its concreteness is the same as the viewed object.

In Patañjali it is a kind of craziness<sup>64</sup> for objects which S. Lindquist<sup>65</sup> considers to be the beginning of the real suggestive hypnosis. Lindquist and Jacobi<sup>66</sup> then suppose that *dhyāna* is an increased spiritualization of *dhāraṇā*. If we suppose that the internal object — a concrete image is the spiritualization of an outer object then the essence of *dhyāna* has not been adequately expressed. *Dhyāna* is an isolation of an impulse from a certain object, a restriction, of dispersed impulses from various sources to an impulse from a single, selected source. From this isolated source the impulses flow in one stream. It is a fluent stream of isolated impulses in which no other para-central impulses flow.

In psychology it is called a sensation, which is a pure stimulation, so to say physiological stimulation transmitted to these organs by an outer factor. This stimulation must be isolated, must not be connected with another impulse or remaining impressions, because the mind does not create a perception. It is thus the task of *dhyāna* to create a pure, physiological sensation.<sup>67</sup>

In Pavlov's terminology we would formulate it in that only a single reflex is produced.

The Lindquist's comparison with hypnosis can be answered by Pavlov's words:<sup>68</sup> I wish to mention a fact which could be observed in our laboratory. A dog was deprived of three receptors and then slept continuously. In spite of this he could be awaked by means of the remaining skin receptors and thus used for experiments. We encountered here the following unusually interesting fact which was analogical to a hypnotic state: only a single reflex could be evoked in this dog; it was not possible to evoke in him two, three, or four reflexes simultaneously as in normal animals. This could be

<sup>64</sup> The objective craziness is described by Jadunath Sinha in Indian Psychology. Perception, on the p. 279: A lover infatuated with love for a woman sees his beloved near him. Here the subconscious impression of the woman is received by the strong passion of love and invades the fields of consciousness; the memory image of the woman distant in time and space appears like a woman actually perceived here and now.

<sup>65</sup> Die Methoden p. 107.

<sup>66</sup> Über das urspr. Yogasystem I, p. 603.

<sup>67</sup> There is no danger of my introducing new conceptions. In *cittavṛtti* the first form is *pramāṇa* which consists of three parts. The first is *pratyakṣa* whose task it is to grasp the impulses only by the eye, in *anumāṇa* they are connected with the impressions, with *kleśas*, and then arrive as an elaborated conception. We could express this that in *dhyāna* the first form is restricted in function in that it is restrained on the grasping of impulses from a source, so that the object reflects as it is, without a further interference of the citta apparatus, i. e. only physiologically.

<sup>68</sup> I. P. Pavlov: Selected Works, p. 241.

explained by the fact that the tonus of the cortex, i. e. the emotional process with which the total cortex disposes was so weak that once it was concentrated to a single impulse, nothing remained on another place and for this reason all the other impulses evoked no effect."

In the case of constraint there is also a partial inhibition so that only a single reflex is evoked.

According to Pavlov<sup>69</sup> there are two various central apparatuses in the central nervous system: The apparatus of the direct conduction of the nervous current and the apparatus for switching it on and off (association). Accordingly he differentiates between an unconditioned reflex in which there is a permanent connection of the outer factor with the activity with which the organism reacts, and a conditioned reflex where the connection is only temporary.

We have learned in the case of *virāmapratyaya* that this impulse can be either innate in the form of an instinct or that it can be acquired. In the case of *dhyāna* it is possible to achieve such a degree of inhibition that only one impulse remains active and does not evoke any association because the impulse is only reflected. A connection has been achieved between certain outer factors and a response to them. The thing in question is, without doubt, how to acquire this new kind of conditioned reflex.

According to Patañjali constraint leads to the acquirement of new perfections, i. e. *sanyama* contains conditions for magic experimentation which result in new perfections.

These conditions are: 1. Concentration of one's attention to a certain thing. 2. Inhibition of unsuitable and undesirable impulses and the flow of impulses only from one object. 3. The mind is thus identified with the object and disappears in it, and reflects it, so that the object shines forth and nothing more.

The mentioned conditions are the prerequisite for successful experiments. Pavlov<sup>70</sup> for instance mentions the following conditions: 1. simultaneous influence of two factors (e. g. bell and food). 2. Inhibition of other impulses, both exterior and interior. This as a whole is in accord with the above mentioned conditions. 3. This leads to the identification of the two factors (bell and food) and a new connection is formed between certain outer factors and a certain response (a new track has been formed, in German „Bahnung“).

I wish to show on an example what is the procedure in the acquiring of new perfections according to Patañjali, i. e. what is the procedure of a magic experiment. It is for instance possible to increase the scale of sensations which are normally not perceived. According to III 35 the perception is increased in the organs of hearing, sight, feeling, taste, and smell as the result of a concentration upon what exists for its own sake. I wish to differentiate the subject from an object which is telically subordinated

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<sup>69</sup> a. a. O., p. 158.

<sup>70</sup> a. a. O., p. 126.

to the subject. In practice the impulse from a subject is identified with the impulse from an object. If I try to distinguish them, then I comprise also those impulses with which the subject was not identified. The object exerts its effect directly.

According to Pavlov we could explain it as a difference between an artist and a scientist. The artistic type according to Pavlov<sup>71</sup> is analogical and close to an animal, it perceives the whole outer world as conceptions by its immediate receptors. The brain receives sounds stimulations in the same way as a photographic plate receives the fluctuations in the intensity of light, and in the same way as a phonographic plate receives sounds. The most essential characteristic of an artistic type is its systematic reproduction of reality which is inaccessible to the scientist. Pavlov explains it physiologically that in the case of artists the activity of the hemispheres contacting the whole of its surface affects least the parts of the forehead and is concentrated mostly in other areas; whereas in the case of scientists the activity is concentrated predominantly in the parts of the forehead.

The mentioned sūtra would thus lead to the elimination of differences in the types and would teach to increase the perceptibility on the whole reality.

Similarly it is mentioned in the next sūtra III 41, that it is possible to increase the perceptibility of the senses by the concentration upon the relation (*sambandha*) between the organ of hearing and the air or ether (*ākāśa*). This is then extended by Vācaspati to the connection between the organ of smell and earth, etc.

According to another sūtra III 21 it is possible to achieve indiscernibility of body by constraint upon the form of the body, when its power to be seen is stopped. There is the disjunction of the light and the eye. This according to Vācaspati concerns also indiscernibility of sounds etc. The body has the power to be grasped (*grāhyaśakti*), i. e. emits impulses through which it is recognized. When this power is stopped the yogin becomes indiscernible, nobody perceives him, i. e. he inhibits (*pratisthabhnāti*) impulses of his body etc.

According to III 30 it is possible to inhibit hunger and thirst by constraint upon the well of the throat. To this it is possible to add that already at the end of the year 1862 an existence of mechanisms has been proved by direct experiments on the brain of a frog which if stimulated inhibits painful skin reflexes. Each of the nervous mechanisms are thus provided with two nervous regulators — antagonists. One of them for instance weakens the respiratory and the cardiac activity to absolute cessation and the other increases them.<sup>72</sup>

The mentioned examples, particularly the example about the indiscernibility of body, prove that *pratyaya* means something what signifies an impulse, which comes out of an object which has the power to be grasped (*grāhyaśakti*).

<sup>71</sup> a. a. O., p. 357.

<sup>72</sup> I. M. Sečenov: Refleksy golovnogo mozga 1947, p. 23 and 29.

5. *Bhoga with pratyaya-aviśesa.*

Patañjali understands the world, all produced things, and the sense-organs (*bhūta-indriya*) teleologically. The last of the five forms of an object and of the sense-organs is teleological — *arthavattva*. One of the purposes (*artha*) is *bhoga* — eating, the devouring of the world, i. e. experience. The subject devours the world up to complete satiation. The final purpose of Yoga is formulated in that *kaivalya* — independence means a purposeful reversal of the qualitative world factors — *gunas*, which are then teleologically empty for the subject so that the intellectual power of the subject is grounded in itself. (*puruṣārthaśūnyānāṁ gunānāṁ pratiprasavah kaivalyam svarūpapratiṣṭhā vā citiśaktitirīti IV 34*).

Between these two extreme stages Patañjali mentions two other procedures :

1. In the connection of the subject with the object (*samyoga*) by eating the world, i. e. by experience, the apperception of the true nature of the power of the proprietor and property is acquired (*svasvāmiśaktyoh svarūpopalabdhih* II 23). The reason for the connection of the subject and the object is the undistinguishing *avidyā* and the means to the annulment of this connection is the discriminative discernment (*vivekakhyāti*).
2. In further procedure the purpose of the subject and of the object is distinguished which leads to self-knowledge. This procedure is formulated by Patañjali in III 35 : “*sattvapuruṣayor-atyanta-asamkīrnayoh pratyaya-aviśeso bhogah. Para-artha-anyā-sva-artha-samyamāt-puruṣajñānam* — Experience is an impulse which fails to distinguish the two excessively indifferent — uncommingled aspects, i. e. the subject and the object. Since the *sattva* exists as object for another, the knowledge of the self arises as the result of constraint upon that which exists for its own sake.”

In the mentioned formulation it is necessary to determine the meaning of *sattva* and *pratyaya*. *Sattva* from *sat-tva* means existence, thing, or being. In this sense Vācaspati says to II 19, that existence (*sattva*) is that which is capable of acts, i. e. fulfilling the purpose of the Self. Thus for instance the existence of water-jars and other objects is acquired by experience (*anubhavasiddham tu ghaṭādīnām sattvam* I 43).

The commentators, however, in their interpretation restrict the meaning of *sattva* only to *buddhisattva* which is according to them a synonym of *citta-sattva* since for instance Vācaspati to IV 19 identifies them. In the same formulation Vyāsa identifies *buddhi* and *citta*: II 20 “*kim ca parārthā buddhiḥ saṃhatyakārītvāt, svārthah puruṣa iti* — Moreover the thinking substance exists for the sake of another since it produces combinations, whereas the self exists for its own sake.” To IV 24: “*cittam parārtham parasya na*

*svārtham samhātyakāritvāt* — The mind-stuff exists for the sake of another, not for its own, since it produces combinations.”<sup>73</sup>

The opinion of the commentators does not in principle contradict the conception of Patañjali which attributes objectivity to *citta* (*drśyatvam* IV 19). This objectivity, however, is restricted only to the subject so that my consciousness is not the object for another. He explains this in that if one *citta* were object of sight for another there would be an infinite regress from one thought to another thought as well as confusion of memory (*cittāntaradrśye buddhibuddheratiprasāṅgah smṛtisamkaraśca* IV 21).

In the sense-organs there is one form—*asmitā*—the egotism, which means that the sense-organs and the mind-stuff stand only in the relation to the subject. Another person cannot see through my eye, he cannot recognize through my mind, nor can he recall to his mind my impression when remembering. *Sattva* refers without doubt also to *citta* as can be derived also from sūtra IV 24, that *citta* is for the sake of another. *Citta* is coloured by the subject and the object and can thus serve to all purposes (*sarvārtham* IV 23). However, Patañjali attributes purposefulness—*arthavattva* to every object and every quality—*guṇas*, sense-organs (II 20, III 44, 47, IV 34). Finally also Vyāsa classifies in his mnemotechnical vers the impressions—*samskāras*, to *vastu*—real objects (in III 15).

*Sattva* refers to the whole object including impressions, consciousness, sense-organs, and things in general. This broader significance can be derived also from further formulations III 35-55, where there is the mention of the subjugation of things, body, sense, etc.

The second expression *pratyaya* is interpreted as in many other sūtras as image or presented-idea. This, however, cannot be the meaning here since in the case of digestion there are no presented-ideas. Vācaspati also says to IV 16: “For it would follow that the taste and the sensoric power and the digestion and so on be the same whether one makes use of an actual sweetmeat or of a sweetmeat of hope.”

According to Patañjali the presented-idea (Vorstellung) is evoked by an impulse from impressions in the same way as apperception is evoked by an impulse from a source. For this reason in the case of *bhoga*—experience, two various impulses are fused and not two various ideas. The fusion of things, impulses, images, verbal expressions etc. is the result of *avidyā*. Therefore Vyāsa<sup>74</sup> quotes a proof about the effectiveness of this undifferentiating *kleśa* in the following interpretation: “He who counts any existing thing, whether phenomenalized or unphenomenalized as himself; or who rejoices in the success of these (things), deeming it his own success, or who grieves

<sup>73</sup> Vācaspati to II 20 explains, wherein lies *samhātyakāritva* — producing of combinations: “Moreover the thinking-substance, in as far as it fulfils the purpose for the subject connected with *kleśas*, *karma*, *vāsanā*, objects, and sense-organs, exists for somebody else’s sake.

<sup>74</sup> To II 5.

at the ill-success of these (things), deeming it his own ill-success—these are all unenlightened."

J. H. Woods<sup>75</sup> quotes in this respect Balarāma who among the things he mentions gives also such as sons or cattle or servants or beds or seats, which are not the self.

This quotation also characterizes *bhoga*. An impulse from an outer source, whether it is an outer thing or impression, fuses with the impulse from the subject. This impulse is teleologic. By distinguishing the teleologic orientation of the object towards the subject from the proper purpose of the subject, the subject is recognized; this means that purposeful distinguishing leads to self-knowledge.

If we for this purpose avail ourselves of the colour theory according to which the subject and the object colour the mind-stuff, then the two coloured impulses fuse into one colour. The experience or the impression are coloured so that Patañjali says that the mind-stuff is diversified by countless impressions, of which *citta* produces combinations for the sake of the subject. And for this reason also *karma* is coloured (IV, 7), i. e. black, white-and-black, white, neither-white-nor-black i. e. transparent. For this reason also the image evoked from these coloured impressions is coloured. The subject merges with it as with an apperception etc.

This psychological observation, which is without doubt based also on physiological observations on eating, corresponds to present day experiments. I wish to mention the experiment with the dog.<sup>76</sup>

Pavlov directs this experiment to the conditioned reflex but it is also possible to use it for the clarification of *bhoga*. In Pavlov's terminology *bhoga*—eating would correspond to the conditioned reflex and Pavlov investigated under what conditions the conditional reflex is evoked and how the new nervous track is connected.

The basic condition is a simultaneous influence of an outer factor and of an unconditioned reflex. In our case the food is the unconditioned impulse of food-reaction. If the taking of food in the animal occurs at the same time with the effect of the factor which previously had no relation to the food (for instance the bell) the latter factor becomes the impulse for the same reaction as the food itself (bell = food).

The essence of the experiment lies therein that the dog was stimulated by the strokes of the metronome and at the same time fed, i. e. an innate food reflex was recalled. By frequent repetition the metronome alone caused the formation of saliva, and of corresponding movements. If we repeat several times the conditioned reflex (the bell) without the accompaniment of the unconditioned reflex (the food) through which help the conditioned reflex was created, this reflex gradually and inevitably fades till it disappears altogether. If the conditioned reflex in the form of a signal of the unconditioned

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<sup>75</sup> a. a. O., p. 111, note 3.

<sup>76</sup> I. P. Pavlov: The Technique and Methods of Objective Research in the Activity of Cerebral Hemispheres, p. 126 and further.

reflex begins to signalize incorrectly then it begins gradually to lose its stimulatory effect.

The conditioned reflex is easily created by more or less indifferent (i. e. uncommingled) factors. According to Pavlov there are really no absolutely indifferent impulses. A normal animal reacts to a change in the situation by an investigatory reflex "what is it?" If this relatively indifferent impulse is repeated the effect on the cerebral hemispheres is spontaneously lost and thus also the obstacle for the creation of the conditioned reflex is suppressed.

Let us apply this experiment to *bhoga*. First the metronome and the food have no relation to each other, they are uncommingled just as *puruṣa* and *sattva*. If, however, later on only the bell of the metronome is sounded, saliva is formed, i. e. in the impulse there is no distinction between the two, the bell and the food, and the symptoms of eating appear. With the time, however, the dog distinguishes the impulses so that the signal of the bell has no effect.

Patañjali would interpret it that in eating the two signals from the *puruṣa* and the *sattva* merge. It is an undifferentiated impulse, the cause of which is *avidyā*, which joins the subject to the object. With the time we are, however, aware of the two natures of the two powers in the sense that we distinguish their teleologic orientation. We thus distinguish that the food is teleologically oriented to the subject whereas the bell has its own purpose so that the two have nothing in common. And it is just the differentiation of the two purposes that it is possible to recognize one's Self.

Vācaspati mentions several examples how the experience develops, which is the proof of correct observation. Thus he mentions to III 35 the example with the moon: "Sattva has the quality contrary to the Self. An impulse which fails to distinguish takes the image of the intelligence. And so the serene and other forms (of *gunas*) are falsely attributed to the intelligence, just as the trembling of the clear water which reflects the moon is falsely attributed to the moon." There are two sources here: the trembling of the clear water and the moon which merge into a single impulse during the reflection of the moon in the water.

Towards the end he mentions a similar example: "The *sattva* depends upon the Self in the same sense that a person depends upon his face reflected in a mirror (if he wishes to see himself)."

The undistinguishing of impulses is shown particularly in the following example (to I 4): "Wrongly supposing that his face when reflected upon the dirty surface of a mirror is itself dirty, the individual bemoans himself at the thought that he is dirty." Thus two various sources overlap each other in the impulse and are undistinguishable.

These observations are of a very old origin since e. g. in Chānd. Up. VIII. 7, 4 Prajāpati applies to Indra and Virocana to look into the water and into the mirror to see themselves (the Self). Prajāpati means by the Self the subject of all being, Indra and Virocana mistake the Self for the person that is seen, not the person that sees. They ask whether the image that is seen in

the water and in the mirror is the Self. They confuse the true Self with the body.<sup>77</sup> With regard to these attempts for the interpretation of the difference between *sattva* and *puraśa* Patañjali gives a suitable and justified procedure how to achieve *puruṣajñāna*—the knowledge of the Self from *bhoga*—experience.

The Indian conception of the Sokrates' principle “*Gnothi seauton* — know thyself”—shows also the method how it is possible to acquire this knowledge. Patañjali bases his interpretation on a teleological conception. But already the circumstance is very interesting, that we can understand Patañjali's teleological formulation on the basis of physiological experiments.

In the case of *bhoga*—experience, *pratyaya* thus means an indifferent impulse which is overlapping, i. e. not differentiating, the two sources which are quite independent of each other.

#### *6. Paracittajñāna with pratyaya.*

Among the perfections which are the result of *samyama*—constraint, Patañjali also mentions the recognition of the mind of the other person. He says in III 19, 20: “*pratyayasya paracittajñānam. Na ca tatsālambanam. tasyāviśayībhūtatvāt*” — by constraint upon an impulse the knowledge of the mind of another person is acquired. This knowledge, however, does not refer to a source, or to a support of this mind because this source or support is not within the operational field.”

It is a kind of telepathy, the reading of somebody else's thoughts, with the restriction, that we do not recognize the substance on which the consciousness is based, we do not recognize the source. For instance a certain impulse signalizes, sometimes only for a moment hatred, love, character, illness, etc., but we do not know how this state was evoked.

J. W. Hauer<sup>78</sup> opines that Patañjali gives the warning not to rely on the images of another person, because one does not know his relation to the object. It is not really the case of a warning but Patañjali restricts here the scope of this kind of knowledge where one acquires the knowledge of the mind of another person by concentrating upon the impulse and not by reasoning.

S. Lindquist<sup>79</sup> interprets *cetopariyañāna*, *paracittavijñāna* (*Dīgha Nikāya* III 281), which corresponds to Patañjali's *paracittajñāna*. It is a knowledge which comprises the knowledge of the internal life, thoughts, and feelings of another person. Especially interesting in this method is the fact that after concentration one observes the blood colouredness of the other person depending on the heart and in this way the mind of the other persons is examined which also depends on blood colouring. Lindquist then identifies this procedure from the beginning to the end with hypnosis during which an increased sensitivity for conscious and subconscious expressions of the mental

<sup>77</sup> Radhakrishnan: *The Principle Upaniṣads*, p. 502.

<sup>78</sup> J. W. Hauer: *Der Yoga als Heilweg*, p. 152.

<sup>79</sup> S. Lindquist: *Siddhi und Abhiññā*, Upsala 1935, p. 75—77.

life of another person is manifested. It is then according to him nothing unusual that the hypnotised person notices such subsidiary expressions which escape totally to another observing person. The combinational ability can be far more strongly increased during hypnosis than under ordinary conditions.

Lindquist's identification of Yoga phenomena with hypnosis can be to-day explained by the fact that in the case of hypnosis, sleep, or wakefulness, there is according to Pavlov the same inhibition of commotions disregarding the way how the inhibition has been evoked.

As regards the relation of the impulse to the acquiring of the knowledge of the mind of another person, it is important that during this procedure the mind of another person is recognized from the colour of the blood streaming from the heart. This opinion is completely in harmony with Patañjali's conception. The connection of the mind with the heart is derived from III 34: "*hṛdaye cittasamvit* — as a result of concentration upon the heart there arises a consciousness of the mind-stuff." *Cittasthāna* — the locus of the *citta* is in the cardial tube (*sūṣumnā*).

Patañjali states in general that it is possible to recognize the mind-stuff of another person. Let us remember that according to the interpretation mentioned before to sūtra III 21 the body has *grāhyaśakti* — the power by which it is understood, recognized, i. e. that the body emits impulses.

We must also remember that the physiological and psychological basis for all activities are the qualitative factors—*gunas*, from which the impulses arise. The difference between these *gunas* lies therein that one of them is dominant and the others are subordinated.

Also Hippocrates (V. c. B.C.) supposed that the state of the organism depends on the quantitative relations of the basic secretions and called their ratio *krasis*. This was later called in Latin *temperamentum*. According to this the spiritual characteristics of people depend on *krasis*, on the temperament, or according to the Indian opinion on the ratio of the *gunas*.

In this sense we must understand the expression *pratyaya* as an impulse in which the mental life of the man is reflected. This impulse concerns both the colour of the blood, and a certain feature, i. e. the spark of the eye, etc. from which it is possible to recognize the man's character, his thoughts, feelings, etc. The man's character, his temperament, every commotion of the mind, and his thoughts are reflected on the outside and according to certain features it is possible to classify the people.

Pavlov<sup>80</sup> says: "It has been observed for a long time and proved scientifically that if e. g. we think of some movement, i. e. if we have a kinesthetic sensation, we perform the movement spontaneously without being aware of it. The same is true about the well known magical attraction with a man who solves a task not known to him, to go somewhere, or to do something with the help of another person who knows the task, but does not intend to help him.

<sup>80</sup> I. P. Pavlov: Physiological Mechanism of the so Called Will-directed Movements. „Práce“ Vol. VI, 1, 1936.

In reality, however, it is sufficient for the other person to hold the hand of the first person. In this case the other person spontaneously without being aware of it pushes the first person in the direction of the target."

But also from the commentators it is possible to deduce, that *pratyaya* means impulse.

The difference between *pratyaya* in the sense of an impulse and *jñāna*—knowledge can be clearly seen from Bhoja's commentary to III 19. He says : "pratyayasya kenacit mukharāgādinā lingena grhītasya yadā samyamām karoti tadā parakīyasya cittasya jñānamutpadyate. Sarāgamasya cittam virāgam veti paracittagatānapidharmāna jānātītyarthah. — When (one) performs *samyama* with regard to the impulse obtained by any mark (sign) such as complexion of the face, then it raises the knowledge of the mind of another person that is he knows even the qualities which have entered into the mind of the other person, whether his mind is impassioned or dispassionate."

In other respects Bhoja identifies *pratyaya* with *jñāna* which could not be applied to this sūtra. According to Bhoja in III 19 a certain feature (*linga*) is taken from the face as the source and thus becomes the impulse (*pratyaya*) for the creation of knowledge (*jñāna*).

Bhoja to III 21 explains that the body (*kāyah*, *śarīram*) has *grāhyaśakti*—the power of being apprehended. The Yigin can arrest this power, so that the connection of the organ-of-sight of another person does not happen.

If we apply this interpretation to sūtra III 19 then *pratyaya* means that which comes from the body of another person, i. e. *śakti* which is transformed to *pratyaya*—impulse. Only from an impulse can knowledge—*jñāna* be developed.

According to Bhoja's interpretation, *pratyaya* in III 19 clearly means impulse and not *jñāna*.

The meaning of *pratyaya* as *kāraṇa*—cause follows also from Vācaspati's comments to IV 19, in which he says: "wherever there is activity (*kriyā*) it is possible in all the cases to ascertain its relation (*sambandha*) to the factor (*kartṛ*), to the cause (*kāraṇa*), and to the object (*karma*). In the same way we can see the act of cooking in its relation to Chaitra, fire, and rice."

If we put this relation into a line we can also find the position of *pratyaya*.

<i>kartṛ</i>	<i>kāraṇa</i>	<i>karma</i>	<i>kriyā</i>
Chaitra	fire	rice	cooking
<i>para</i>	<i>pratyaya</i>	(source)	<i>citta</i>

In order to find out that Chaitra is cooking, I must see the fire. If I see that Chaitra is cooking, I recognize this according to the fire, whatever he may be cooking, and not according to the image of fire. Vācaspati wittingly says (to I 32) that the Brahman boy cannot cook with fire which he imagines to be present, but (according to II 28) he can cook only with an existing fire.

In the same way I recognize the mind of Chaitra, his images, thoughts, feelings, character, etc., according to the impulse, the colouring of his blood,

his feature, etc., from whatever source this impulse, which I do not recognize might come.

If we substitute in the mentioned sūtra III 19, 20 *pratyaya* with impulse, as expressed by a certain colouring of blood, a certain feature, etc., the sense of the mentioned sūtra is clear.

At the same time this formulation is a proof of the relation between the physiological and psychic aspects which form a single, undividable whole, although differentiated vertically.

#### 7. *Śabda-artha-pratyaya.*

According to Patañjali it is possible to acquire the ability to understand all the voices of all the living beings by concentrating on the differences between *śabda-artha-pratyaya*. Patañjali formulates this procedure and its result in III 17: “śabda-artha-pratyayānām-itara-itara-adhyāsāt-samkarastat-pravibhāga-samyamāt sarvabhūta-rūta-jñānam — The sound of word, the meaning, and the impulse are confused because they are erroneously identified with each other. By constraint upon the distinction between them (there arises) the knowledge of the cries of all living beings.”

In the first place what is the correct meaning of the expressions *śabda-artha-pratyaya*, which is usually interpreted as word, thing, and image or presented-idea. The determination of the correct meaning depends on the understanding of the verbal form of commotion—*vikalpa*. In I 42 Patañjali says: “tatra-śabda-artha-jñāna-vikalpaiḥ samkīrnā savitarkā (samāpatti) — The state—balanced with deliberation is commingled with *vikalpas*, i. e. abstract relations between the verbal sounds, and the meaning and the sense of the word,” which is usually translated as a relation between a word, object, and conception (idea). Vācaspati explains *vikalpa* as *itara-itara-adhyāsa*, so that both sūtras I 42 and III 17 are connected.

The commentators were without doubt very good philologists and give a very voluminous commentary from which I intend to present only the important parts.

Vyāsa differentiates between the sound aspect of the word from its significance. The ear has as its object only the transformation of the sound (*śrotram ca dhvanipariṇāmamātravisayam*). This verbal sound is grasped by the mental process (*buddhinirgrāhyam*), the meaning known from before is attributed to it. This meaning is selected according to an indicator sign (*saṃketa*). The word contains the power to express a sentence (*vākyasakti*), which is based on reality, existence. If we say for instance a tree, it is said at the same time, that it exists (*vṛkṣa ityukte 'stīti gamyate*). The meaning of the word thus does not deviate from existence, reality (*na sattām padārtho vyabhicaratīti*). Thus for instance a cow means a thing with its dewlap and other specific features.

The word by means of its expressing power has the ability to express the meaning and the sense of a sentence. The commentators give examples illus-

trating the commingling of three factors. In the first place it is the ambiguity of words, for instance *aśvah* means horse or thou didst go or swell; *bhavati*—he is or O, Lady; *ajāpayas*—goat's milk or thou didst conquer (the foes). The relation between *śabda-artha-pratyaya* Vyāsa illustrates on the examples: the palace whitens—*śvetate prāsāda iti* and the white palace—*śvetah prāsāda iti*. The process of whitening is often identified with its result, with the white quality, so that as regards their features the impulse of both the objects is the same. The difference between the three expressions is that the meaning of white is that which becomes the meaning of the thing upon which the word and the impulse depend (*śvetorthaḥ śabdapratyayayor ālambanī bhūtah*). According to Vācaspati the impulse which identifies the two, i. e. to whiten and white, is restricted by the determining sign—*samketa*, which has no support in reality. The reason why the impulse does not distinguish the process of whitening and the white quality is just the determining feature, sign.

In what lies the meaning of the determining sign, if it should have a support in reality?

The commentators start from a correct starting point that the word serves to the information of another person. How do we know that I understand what somebody else says? To this effect I shall mention the interpretation of the commentators to *āgama*—the arrival of the perception, which they consider to be an independent *vṛtti*, i. e. verbal communication.

Vyāsa gives the following interpretation to I 7: “*āptena drṣṭonumito vārthaḥ paratra svabodhasamkrāntaye śabdenopadiśyate. Śabdāttadarthavishayā vṛttih śroturāgamah. Yasyāśraddheyārtho vaktā na drṣṭānumitārthaḥ sa āgamah plavate mūlavaktari tu drṣṭānumitārthe nirviplavah syāt* — A thing which has been seen or inferred by a trustworthy person is mentioned by word in order that his knowledge may pass over to some other person. The fluctuation of the hearer which arises from that word and which relates to the object—intended by that (word) is a verbal communication. That verbal communication is said to waver, the utterer of which declares an incredible thing, not a thing which he himself has seen or inferred; but if the original utterer has himself seen or inferred the thing (then it) would be unwavering.”

I shall, however, mention an example from Vācaspati to II 30 (from MbBh VII, chapt. 190) from which it will be seen that a trustworthy person can lead somebody in error. “Drona the Master asked Yudhiṣṭhira (the king) with regard to the death of his own son Aśvatthāman, ‘Venerable sir, thou who art rich in truth, has Aśvatthāman been slain?’ And he having in mind the elephant who had the corresponding name said, ‘It is true, Aśvatthāman is slain’. This is an answer which does not make Yudhiṣṭhira’s own knowledge pass to (Drona). For his own knowledge derived from the sense-organ (*indriya-janmā*) had as its object the slaying of the elephant and this (knowledge) was not passed (to Drona). But quite another knowledge that of the slaying of the latter’s son, was formed (in Drona’s mind).“ One and

the same word, Aśvatthāman, marks the elephant and Yudhiṣṭhīra's son, or in other words *śabda* has two *arthas*—meanings. The error was committed because the two meanings have a support in different reality, i. e. every meaning has another impulse from a source.

What is then the difference between the three expressions? If Drona does not know that the word Aśvatthāman has two meanings, he places it only under one meaning. In both cases there are two notions, though different, but full of sense, but only one of them corresponds to the reality.

Vyāsa mentions an example to III 17, that I communicate the word *pacati*—bakes, cooks. Chaitra is the agent—*kartr*, rice is the object—*karma*, fire is the means of cooking—*kārana*, so that the words are so constructed as to give the meaning of the sentence, i. e. Chaitra is cooking rice on fire.

According to commentators I have to believe the person, who is telling it to me. This belief lies therein that the mentioned person has seen everything and became convinced about it. Nevertheless in the case of Drona an error was committed although all the prerequisites for knowing the truth were present.

Patañjali formulates the verbal field as abstract, objectively void (*vastuśūnya* I 9). The word conforms with this abstraction and therefore through *vikalpa* errors are committed, because the words are given another meaning, sense. As the proper procedure of a correctly selected sense of the words Vyāsa mentions *vyavahāra*, a term from judicial-police branch which means a verification of the testimony, i. e. he refers to the reconstruction of reality.

I. P. Pavlov<sup>81</sup> considers the second signalizing verbal system as abstraction of reality. Numerous verbal impulses according to him have taken us away from reality and for this reason we must be always aware of this fact if we are not to spoil our relations to reality.

Patañjali says that we can improve this verbal, abstract relation to reality by differentiating the three aspects in speech: the sound aspect, the meaning, and the impulse. If we interpret *pratyaya* as image then Drona will never find the truth and he will never understand the words of Yudhiṣṭhīra. He will only then recognize the mistake when he has convinced himself about the reality.

The commentators lead us to correct understanding by their expressions *samketa*—the determining sign, *vyavahāra*—the verification of reality, and by referring to reality which is the sign of *pratyaya*—the impulse from a source. Drona must come to an understanding with Yudhiṣṭhīra about the reality in order to find his mistake. *Pratyaya* thus means an impulse referring to reality.

The truth is an accord of one's idea, one's knowledge, and one's thoughts with reality. A certain statement is only true as far as it corresponds to reality. A lie or a mistake does not correspond to reality and we can set it right by its verification with reality—*vyavahāra*.

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<sup>81</sup> Selection p. 180 and 166.

Pavlov<sup>82</sup> in his experiment with the dog arrived at the same formulation: "The dog received food simultaneously with the sounding of the bell of the metronome. The bell without the food caused excretion of saliva in the dog. The dog then gradually observes that the signal of the bell does not correspond to reality and thus begins to react to it more and more weakly till finally he does not react at all. An inhibition is gradually developed in the dog since all the processes disappear with the time after interrupting the cause affecting the nervous system."

Patañjali would explain it that the dog has differentiated the sound of the bell, its meaning, and the affecting cause, namely that the bell does not announce the arrival of food and that the inhibition in the dog was caused by the impulse showing that the heard sound of the bell does not correspond to reality.

Let us mention for example the sound of the siren which during the war meant the approach of enemy aircraft. The sound of the siren had its significance, its sense because it referred to reality. Further experience, however, showed that the aircraft did not drop bombs so that it was considered senseless to go to a shelter, till it sometimes did not pay. Thus the reality verifies the meaning of a word, i. e. from the reality streams the impulse to the meaning of a word or sound. The reality is manifested in the knowledge as an impulse, i. e. reality is the affecting cause of every activity.

If we hear the sound of a siren in peace time we ask why it is sounded because the warning against aircraft does not correspond to the reality. There, however, exist some impulses here why the siren was sounded such as fire, etc. The reality and practice verify the meaning of the word.

If we try to find out the correct meaning of the word *pratyaya* in Yoga-sūtras out of the many meanings, i. e. which of the meanings Patañjali had in mind, we have to proceed similarly. We must distinguish the word *pratyaya* and determine its significance etymologically and by its comparison with other texts, and by so doing we arrive at a series of meanings mentioned in the dictionary. In this dictionary there are sentences in which a certain meaning makes sense. In order to determine the correct meaning in Yoga-sūtras we have chosen the method of verification, i. e. we give sense to these sūtras. If this sense is verified by reality, if it fits completely into individual sūtras, we can rightly suppose that we have selected the correct meaning. This is the essence of a scientific, experimental method, which has been found successful also in practice.

A forester understands well the language of animals, and one can suppose that thousand of years of experience in the jungle lead to better understanding of the life of animals and their language, and also lead to the control over them.

If we now form a line in that the differentiation of *śabda-artha-pratyaya* means *jñāna*, i. e. that the differentiation between the sound of the word, its

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<sup>82</sup> Selection p. 280.

significance, and the affecting impulse leads to the understanding of the language then according to Vyāsa *śabda* and *pratyaya* is dependent on *artha*. The sound impulse and the affecting impulse come from the outside. Pavlov<sup>83</sup> truthfully classifies listening to the orientational or investigatory reflex. If we hear a sound, a cry, or a noise which can have several meanings, we look for the cause which has evoked this cry in order to understand it.

In this sense we could complete the meaning of *pratyaya* as something that signifies an impulse which is looking for a direction in a number of verbal meanings or that it is looking for the correct verbal significance with regard to the reality.

### 8. *Drastā-pratyaya-anupaśyah.*

The last sūtra in which the expression *pratyaya* was used is the most important one because by its correct solution we can verify whether or not Patañjali bases his theory on an idealistic conception that the world is one's image.

This sūtra runs (II 20): “*drastā drśimātrah śuddho'pi pratyaya-anupaśyah*. — The seer is nothing but being, although undefiled, surveys the impulses (or according to commentators and some ideologists; the image, presented-idea, Vorstellung).”

The commentators concentrate their interest on the meaning of *śuddha*—pure (in II 20, III 35, IV 22, and other). Vyāsa finally says: “*śuddho 'pyasau pratyayānupaśyah. Yataḥ pratyayam bauddhamanupaśyati* — Because though pure in itself, the Self beholds the presented-ideas, that is to say it beholds that (mutation of matter which the thinking substance undergoes, when it states the form of an object) and which is the presented-idea of thinking-substance.”

*Pratyaya* thus according to Vyāsa means that what is presented to the subject. To I 11 he then says: “*grāhyoparaktaḥ pratyayo grāhyagrahāṇobhayākāra nirbhāsastajjātayikam saṃskāramārabhate* — The presented-idea if affected by the object shines forth in consciousness in a form of both kinds, both of the object and of the process of knowing, and produces thus a corresponding impression.”

J. H. Woods<sup>84</sup> notes that the object as such is not directly perceived but only its form as reproduced in the thinking substance (*buddhisattva*), which in its turn reflects the image cast upon it by the Self.

The commentators, however, differentiate between *cittavṛtti* and *buddhi-vṛtti*—intellectual commotions (IV 22, II 20). Vācaspati identifies *jñāna-vṛttis*—comotions of knowledge with *buddhivṛttis* (to IV 22). In accordance to the commentators J. H. Woods then translates sūtra IV 22: “*citerapratisamkramāyāstadarakārāpattau svabuddhisamvedanam*, as follows: The Intellect which unites not (with objects) is conscious of its own thinking-substance

<sup>83</sup> Selection p. 255.

<sup>84</sup> Yogasystem of Patañjali p. 31.

when (the mind-stuff, *citta*) takes the form of that (thinking-substance by reflecting it)."

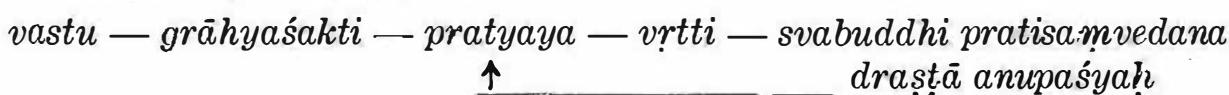
Vācaspati explains by this the state *cittavrttisārūpya* in which the subject conforms with the commotions and says : "The Intellect's consciousness of its own thinking-substance takes place when the thinking-substance, in so far as it is a receptacle for the reflection of the Intellect, passes into the form of that (Intellect), (that is), passes into a resemblance (*rūpata*) of the Intellect. For just as even without activity (*kriyā*) of the moon, the clear water, into which the reflection of the moon has passed over, makes the moon seem to be quivering, although the moon itself is not quivering, so similarly, even in the absence of any operation of the Intellect, the mind-stuff with which the reflection of the Intellect has become united, makes by its own activity the Energy of Intellect seem to have activity, makes it seem to have attachment even when it is without attachment."

Vācaspati to IV 21 identifies *citta* with *buddhi*, but *buddhi* also in this case means that aspect of *citta* which is directed to the subject. *Buddhipratyaya* would accordingly signify what comes from *citta* and what causes *buddhivṛtti*.

The scheme of the process of acquiring knowledge would according to commentators look as follows:



According to Patañjali this scheme would be as follows:



The difference between the two schemes lies therein that according to the interpretation of the commentators the subject surveys the image elaborated by the process of acquiring knowledge about an exterior reality directly, but only at the image of it.

The interpretation of the commentators does not correspond to the basic text of Patañjali. According to Patañjali the subject is aware of his thoughts, his images, and feelings but, nevertheless, looks at the impulses from outer reality that is to say he looks at that which comes from the outside to his notice. This enables the subject to know how to differentiate by progressive experience the subject from the object, namely by differentiating (*viveka*) the signs of the basic *kleśa avidyā*, which is the cause of the connection between the subject and the object.

The commentators base their interpretations on another philosophical conception than the basic text.

This supplement to the Patañjali's conception had the consequence that the commentators interpreted *nidrā* as sleep, i. e. the commotion which is based on the image of unreality. This is also what Vācaspati says to I 10: "Because there is no mutation of the thinking-substance (*buddhi*) into the form of an object, the Self aware of a thinking-substance, which consists of intensified *tamas*, is in deep sleep and inwardly conscious." According to Vyāsa *pratyaya-anupaśyah* means *bauddhapratyaya-anupaśyah*, i. e. the subject does not perceive the object directly but only as an elaborated image about the object.

But the commentators themselves combat this consequence that the world is only one's image.

Thus Vyāsa says to IV 23: "*apare cittamātramevedam sarvam nāsti khalvayam gavādirghatādiśca sakāreṇo loka iti. Anukampāniyāste* — There are others who say that this whole universe is nothing more than the mind-stuff, and that this world of things, cows, and water-jars and other things together with their causes does not exist. They are to be pitied."

In the same way in IV 14 he condemns the directions which deny the existence of things as such, and who say that a thing is only a readjustment of percepts like the objects of a dream, and not a thing in the full sense of the word (*jñānaparikalpanāmātram vastu svapnaviśayopamām na paramārthato 'stīti*).

It is also stated in the suspicious sūtra IV 16 which is more likely only Vyāsa's commentary: "*na caikacittatantram vastu tadapramānakam tada kim syāt?* — A thing is not dependent upon a single mind-stuff, it could not be proved, then what would it be?"

In II 18 it is said that the essence of the object-of-sight (*drśya*) are the produced things and the sense-organs (*bhūta-indriya-ātmakam*). The difference between *vastu*—object, and *citta*—mind-stuff lies therein that the path of the two is different (*vibhaktah panthah* IV 15).

Vyāsa identifies *vastu* with *buddhi* in the sense, that *vastu* is *triguṇam*, i. e. it is composed of three *gunas* (IV 15) and *buddhi* also (II 20; and *Buddhiguṇāḥ ... pratyayam triguṇamevārabhante* II 15 — *gunas* of the thinking-substance create a three-*guṇa* impulse). From this can be derived that *buddhi* in the same way as *vastu* creates a three-*guṇa* impulse. If Vyāsa then states that *buddhi* is unconscious because it is composed of three *guṇas* and that *puruṣa*—the subject beholds these *guṇas* (II 20) then he points out the right way to the explanation. If three-*guṇa* impulses are developed from *buddhiguṇas* then three-*guṇa* impulses are also developed from *vastuguṇas*. In that case *pratyaya-anupaśyah* refers both to the impulses from *buddhi* and *vastu*, i. e. the subject surveys and examines outer impulses from sources and internal impulses from impressions.

The commentaries are thus inconsequent and their texts are contradictory, but even under these circumstances they are a reliable source to the finding of the way to correct interpretation of the basic text of Yoga-sūtras. This text suffers deformations in commentaries under the pressure of Sāṃkhya,

Buddhist, and other conceptions of the commentators but the original explanation shines through.

In the first place there is a fine difference between several Patañjali's formulations:

1. The subject knows always the commotions of the mind-stuff (*sadājñā-tāscittavṛttayah* IV 18).
2. He is aware of its own thoughts (*svabuddhisamvedanam* IV 22).
3. The subject is a mere vision (*drśimātra* II 20).
4. At the same time, however, he surveys the impulses, that is to say what comes to it from outer and inner reality (*pratyaya-anupaśyah* II 20).

The subject is at the same time in the state in which he conforms with the *vṛttis* (*cittavṛttisārūpya* I 4) and in one's own form in which the *vṛttis* are controlled (*svarūpa* I 3). The impulses—*pratyayas* evoke *vṛttis* (I 10). If the subject thus conforms with these *vṛttis*, than he can survey only the impulses from either outer or inner source. If it is in his own nature he surveys the impulses without *vṛttis*, i. e. he surveys the reality as it is. The commentators consider *pratyakṣa*—sensation as an independent *vṛtti*—perception. According to their explanation the outer object affects, i. e. colours the mind-stuff through the channel of the sense-organ and they say that the commotion is related directly to an outer thing (I 7), because a real fact (*bhūtartha* I 8), an existing thing (*sadviṣaya*), is the object of *pramāṇa*.

Nevertheless Vācaspati interpretes also perception idealistically (to I 7): "For the illumination whose seat is in the Self is not produced, but is the result when the intelligence is reflected in the mirror of the thinking-substance (*buddhi*) and assumes the form of that (thinking-substance) in so far as the fluctuation of the thinking-substance (*buddhivṛtti*) has the form of the object. And this (intelligence) in this (assumed) condition is undistinguished (*aviśista*) from the thinking-substance and has its being in the thinking-substance. Moreover since the fluctuation has its being in the thinking-substance there is ground for the relation of *pramāṇa* as the source of the valid idea to the result in the fact that (both) have the same locus (namely, in the thinking-substance)."

I wish to add an example from Buddhist literature. In *Udāna* 6, 4 there is a mention about a dispute whether the world is eternal or ephemeral. Some people went to Buddha for advice and Buddha told them that they were like blind men and mentioned the following event. Once upon a time there lived a king in Śavatthi who summoned all the blind men from the town and ordered them to bring an elephant with them. The king came to them as they were standing around the elephant touching that part of the elephant's body at which they stood, and asked them what the elephant was like. These who touched the elephant's head compared the elephant to a jug and those who touched his ears compared it to a wicker-tray and similarly they compared his legs to pillars and the end of the tail to a brush, etc.

These blind men, however, did not create an image of a jug etc., but they

compared former sensations from a jug with the sensations or impulses from the elephant's head as a source. In other words we could say that they projected their ideas about a jug on the new source of the impulse.

Patañjali would formulate it that blind men possess the impression from the commotions which were evoked by an impulse from a jug. The new impulse from the elephant's head evoked a commotion which conformed with the impulse from the memory fund, so that they were aware that it was a jug as they sought looking for new impulses by means of their touch, i. e. they sought something which came to them—*pratyaya*. By this search for impulses they verified a new experience in accordance with their limited possibilities.

We must, however, be aware that our mental process is different from that marked by Patañjali. We can differentiate sensation, perception, image, thought, feeling, and will. We formulate perception as a reflection of objects of a real world which affects our sense. A sensation is a pure stimulation, so to say a physiological one, which is passed to the sense-organs by some outer factor. According to us, perception is that which is developed in one's brain after it has been found out that this stimulation is not isolated but is connected with another object and with the remaining impressions. On this basis we perceive outer objects.

Psychology based on the experiments of I. P. Pavlov must reckon with the stated signalizing systems and elaborate a system as was often demanded by Pavlov himself.

Patañjali imagines the process of acquiring knowledge about the reality in the way that every object has five forms, with which the five-fold *vr̥tti* is in conformity. In Pavlov's terminology we should say that according to Patañjali there are five signalizing forms in every *vr̥tti*. The subject identifies himself in the first phase of knowledge with the *vr̥tti*, he knows it, is conscious of it and surveys the impulses. This survey of the impulses is the projective activity of the subject by which he verifies the reality.

In the *sārūpya* state at the beginning of this research the merge of the internal reality with the outer reality is manifested as a result of the undistinguishing *klesa avidyā*, as mentioned in Vyāsa's document to II 5. According to him the subject projects the picture of the outer world created by *citta* directly on the objects.

The objective reality thus merges with the subjective, undistinguishing reality. The task of the Yoga is to separate from the subjective reality everything that is subjective in it, i. e. that which comes out of the activity of *citta*, impressions, and *kleśas*, and to achieve the reflection of the direct objective reality. This is achieved by the control of the subjective *klesa* apparatus so that *citta* as crystal-clear and uncolouring outer reality which is transmitting this outer reality in its impulses, reflects the outer and inner reality as it is.

This aim is achieved with the help of the investigatory impulse by which we verify the correctness and the truth of the knowledge.

*Pratyaya-anupaśyah*, i. e. the fact that the subject looks for and surveys

the impulses from a source is a corrective measure for the differentiating of powers of the proprietor and the property, for differentiating the subject from the object, that is to say, for recognizing subjective and objective components of the undistinguished subjective reality and thus for recognizing the true reality whether outer, inner, physiological, or psychic.

If we interpret *pratyaya* as impulse, the mentioned sūtra has a clear sense and is in accord with all the sūtras in which the word *pratyaya* occurs. It also confirms the realistic view-point of Patañjali. By idealistic conception of the commentators Patañjali's formulations of the mentioned sūtras are not only distorted, but they are in direct contradiction with the realistic stand-point of Patañjali.

*Pratyaya* as an impulse and not image gives the whole procedure formulated by Patañjali in Yoga-sūtras a new sense and thus enables to find out the original sense and interpretation of sūtras which as a whole are difficult and laconic, but very interesting even to-day.

#### IV. Conclusion:

By the analysis of all the sūtras of Patañjali where the word *pratyaya* occurs we can summarize the conclusions as follows :

1. *Pratyaya* as a centripetal impulse is related to the original significance, i. e. that which comes in the direction to somebody or something. The term impulse is suitably selected because it expresses better the meaning of the word than the words mitwirkende Ursache, external cause, presentation. At the same time it expresses the initial stage as the cause of every activity and excludes the sense according to which one could judge upon other stages, particularly the final stage as in the case of Vorstellung, presented-idea, fluctuation, knowledge. This initial stage has a firm support in the text of Yoga-sūtras, particularly in I 10, where the relation between *pratyaya* as the beginning and *vṛtti* as the consequence is expressed.
2. *Pratyaya* as a centripetal impulse refers to objective reality, to the source from which it originates. A support for this explanation is in sūtra IV 27 according to which *pratyaya* originates from *samskāras*—impressions. *Samskāras* according to Vyāsa's interpretation also belongs to the same category as *vastu*—external object, i. e. impulses from an external object and from *samskāras* are the same. *Vastu* emits *grāhyaśakti*—the power to be grasped or known.
3. If we select impulse as the meaning of *pratyaya*, we arrive to the following sequence of impulses :
  - a) negative impulse—*abhāvapratyaya* in the inhibitory form *nidrā*,
  - b) inhibitory impulse—*virāmapratyaya* in *asamprajñātanirodha*,
  - c) innate impulse—*bhavapratyaya*, i. e. this inhibitory impulse is innate in some people,
  - d) acquired impulse—*upāyapratyaya*, a term used by the commentators is related to individual special methods from *śraddhā* to *prajñā*,

- e) balancing of impulses—*tulyapratyaya* in the case of transformations of the mind-stuff, *cittaparināma*,
  - f) investigatory impulse, by means of which the sense of language and sounds is found, and also the consciousness of another person and the reality are recognized,
  - g) overlapping, commingling, undifferentiating impulse—*pratyaya-avishesa* in the case of *bhog*—eating, or experience,
  - h) flowing impulse—*pratyaya-ekatānatā* in the case of *dhyāna*.
- The essence of these impulses is to evoke either excitation or inhibition, or inhibition of the inhibition (de-inhibition).
- 4. The existence of such impulses which are exercising various functions can be proved in the sphere of experimental physiology of higher nervous activity as was proved by the results of I. P. Pavlov and his school (or even in the sphere of technique in radiophony, etc.).
  - 5. The meaning of *pratyaya* as impulse gives a clear sense to all the sūtras of the basic text of Yoga-sūtras in which this expression is found and besides it enables also a precise explanation of the whole procedure mentioned in Yoga-sūtras.
    - a) In the first place it is possible to explain clearly that *nidrā* does not mean sleep as was supposed by the commentators which had to face quite justified objections against their interpretation. The meaning of *pratyaya* as impulse removes these objections and in addition it enables to classify *nidrā* as one of the five forms of *vṛttis*.
    - b) A correct interpretation of *virāmapratyaya* as inhibitory impulse leads to the determination of the relation *nirodha*, *samādhi*, *kaivalya* in the sense that *nirodha* is a prerequisite to *samādhi*. This also refutes the presumption of the commentators and some indologists, that there is a conflict between the two texts about *samprajñāta nirodha* and *sabīja samādhi*. The existence of an impulse inhibiting an inhibition gives a clear sense to sūtra I 51.
    - c) The meaning of *pratyaya* as impulses gives sense to sūtras about achieving perfections.
    - d) It is particularly significant that *pratyaya* as impulse gives another sense to the basic conception of Patañjali, i. e. that Patañjali's starting point is realistic and not idealistic, as the commentators presumed.
    - e) *Pratyaya* as impulse puts also in a different light the relation of the commentators to Yoga-sūtras in the way that already the first commentator Vyāsa did not understand correctly the sense of the basic text so that the basic text is much older than the commentary than has been thought hitherto thus solving the question of the authorship in favour of the grammarian Patañjali. On the other hand the commentaries are a reliable guide to the finding of the original sense of the basic text.
    - f) By all this the correct conception of *pratyaya* as impulse puts the obscure and laconic formulations of Patañjali into clear light.

- g) It also contributes to the proof that the basic text of Yoga-sūtras makes a complete unit and that it does not consist of various texts by various schools of Yoga of various times only being compiled by the last editor.
- h) It also enables to find concealed impressions giving the connection with the experience and thoughts of the Old Indian Medical School.
- i) Finally it frees the way to a scientific experimental research of Yoga-sūtras, interesting both from the psychophysiological and experimental view-points.

The aim of this study was to make a contribution in this direction.

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